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ABSTRACT
                An analysis is presented of a review of research
reports on the efficacy of direct instruction in fostering basic
skills development. The review process began with a topical
literature search using the ERIC database and conventional library
methods. Articles and other documents were analyzed and abstracted
into "Item Reports." Each of the items was judged against a set of
pre-established criteria and ranked on a five-point scale. The
collection of Item Reports was examined to identify issues which
could be stated as hypotheses. Each hypothesis became the subject of
a "Decision Display." The Decision Displays were created by sorting
the Item Reports into those which supported or negated the
hypothesis. A Summary Report was then generated from consideration of
the Decision Displays and the file of Item Reports. For this
analysis, 33 relevant documents were selected for examination, from
which four hypotheses emerged: (1) Use of the Distar (Direct
Instruction System for Teaching and Remediation) programs with
disadvantaged, primary level children has a positive effect on basic
skills achievement and affective development; (2) Use of the teaching
strategies and behaviors collectively termed "direct instruction" has
a positive effect on the basic skills achievement of primary and
upper elementary school children; (3) Higher achievement results when
skills and concepts are taught directly than when they are presented
indirectly or not at all; and (4) Direct instruction is inappropriate
for some educational settings, especially those involving older
students and learning activities beyond basic skills development. The
research documents strongly supported these hypotheses. This report
includes the Item Reports on the 33 documents, the Decision Displays
justifying the formation of the hypotheses, and an interpretive
summary of findings. Recommendations are offered based on the
findings and conclusions. (JD)

Topic Summary Report

DIRECT INSTRUCTION

Research on School Effectiveness Project

Prepared for:

Alaska Department of Education
Office of Planning and Research

February 1982

Audit and Evaluation Program
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PREFACE

This report is one of several in a series of reviews of research literature conducted for the Alaska School Effectiveness Project. Each of the reports addresses a topic which is deemed to have an impact, actual or potential, on school effectiveness. All of the reports have been generated using the same general approach and a common reporting format.

The review process begins with a topical literature search using both computer-based ERIC and conventional library methods. Articles and other documents found are analyzed and abstracted into a brief form called an Item Report . Each of the items is then judged against a set of pre-established criteria and ranked on a five-point scale. The collection of Item Reports are then examined for purposes of identifying issues. These issues are stated in the form of hypotheses. Each hypothesis thus generated becomes the subject of a Decision Display. A Decision Display is created by sorting the Item Reports into those which support or negate the hypothesis, are inconclusive, are badly flawed, or are irrelevant. One or more Decision Displays are generated for each topic addressed. A Summary Report is then generated from the consideration of the Decision Displays and the file of Item Reports. Thus, each complete report in the series consists of a Summary Report which is backed up by one or more Decision Displays which in turn are supported by a file of Item Reports. This format was designed to accommodate those readers who might wish to delve into various depths of detail.

This report is not intended to represent the "final word" on the topic considered. Rather, it represents the analysis of a particular collection of research documents at this time. There may be other documents that were not found because of time or other limitations. There may be new research published tomorrow. This present report represents our best judgment of available information at this time. This format allows for modification and re-analysis as new information becomes available or old information is re-interpreted.

For a more complete description of the analysis process see William G. Savard, Procedures for Research on School Effectiveness Project, Northwest Regional Educational Laboratory, December 10, 1980.

Topic: Direct Instruction
Authors: Kathleen Cotton and W.G. Savard
Date: February 1982

Introduction

During the past two decades new educational programs for preschool and
primary level children have proliferated. Many of these, such as the programs
funded through Head Start and Follow Through, have been developed and
implemented to help overcome the learning deficits that often accompany
growing up in socioeconomically disadvantaged settings. These, together with
other new programs for non-disadvantaged students and for older students, have
been researched and evaluated to determine their efficacy in promoting basic
skill achievement and other desirable educational attainments.

Another thread of recent research has involved studying the classroom
behaviors of those teachers whose students achieve more than would be
predicted based on pretest scores, socioeconomic status, handicaps, and so
on. The focus of this research has been to determine what these teachers do
that is special; what they do that enables their students to learn more than
their counterparts in other classrooms.

These two kinds of inquiries have led to well-documented findings about
what kinds of instructional strategies and teacher behaviors work best with
disadvantaged and non-disadvantaged students at the preschool, primary and
upper elementary levels.

In examining different instructional programs and the kinds of teacher
behaviors they require or imply, two main approaches can be identified,
especially as concerns the education of small children. One of these
approaches proceeds from the conviction that young children will
develop basic academic skills, creativity, and self-esteem if they are allowed

to learn inductively--to discover rules, facts and underlying principles from guided exposure to and experience with language, numbers, games, and so on. Programs posited on this notion contain activities which are designed to enable children to learn by inference via numerous guided contacts with program content. Often called "discovery learning," this approach has led to the development of programs which describe themselves as being "focused on building the child's responsibility for learning," as featuring "child-directed choices," and creating situations in which "children are encouraged to select and schedule their own activities."

The other major approach to educating young children proceeds from the notion that basic skills should be taught directly via structured, teacher-initiated activities which involve considerable drill and practice and a high level of teacher-student interaction. Program content is tied directly to skill development in reading, language arts and mathematics; and student-selected activities play only a small part in the learning program. Generally referred to as "direct instruction," this approach is utilized in many instructional programs for older, remedial students and for educable special education students, as well characterizing many programs for primary children.

Before looking at what the research says about the efficacy of this direct instruction method in fostering basic skill development, it is necessary to be aware that the term "direct instruction" is used in three different ways in the research literature. Each of these differs from the "discovery learning" approach, and might be viewed as representing three degrees of rigor in applying the direct instruction principles outlined above. These three applications are described in the following paragraphs.[1]

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[1]Mastery Learning, a concept and practice which is closely related to direct instruction, is addressed in another report in this series.

<u>Direct Instruction System for Teaching and Remediation (Distar)</u>. The most
rigorous application of direct instruction methods may be found in the Distar
programs, whose development was carried out initially at the University of
Illinois and later at the University of Oregon in Eugene. Intended primarily
for use with disadvantaged children participating in the Follow Through
program, these programs provide reading, language and arithmetic instruction
via a model which features small student-teacher ratios; rapid, teacher-
directed, small group instruction; positive reinforcement and immediate
corrective feedback; and an extensive teacher training and student progress
monitoring system. The Distar model involves the use of explicitly detailed
lessons (scripts), a signal system for cueing students to respond, and the
provision of reinforcers to stimulate motivation. The Distar model is based
on the assumptions:

> (1) that all children can be taught; (2) that to 'catch up',
> low-performing students must be taught <u>more</u>, not less; and
> (3) that the task of teaching more requires a careful use of
> educational technology and of time.

Much of the literature on direct instruction is made up of studies and
evaluations of the Distar model programs.

  <u>Direct Instruction as a Set of Teaching Behaviors</u>. Many researchers and
reviewers of research use the term direct instruction to refer to a set of
teaching behaviors which have frequently been observed together in the
classroom operations of highly successful teachers. Described in detail
several years ago by one researcher and adopted as a meaningful concept by
subsequent researchers and reviewers, direct instruction here refers to a
teaching style in which:

> a great deal of time is spent on academic activities, with a
> predominance of seatwork using structured materials. Teacher
> and workbook questions are narrow and direct, usually with a
> single correct answer. Teachers...provide immediate feedback
> using praise and acknowledgment of student answers. Students
> work in groups supervised by the teacher, with little free
> time or unsupervised activity.

Direct instruction is also characterized by an animated and supportive approach on the part of the teacher. It can readily be seen that this approach differs radically from the "discovery" method. It is also describable as being a few degrees less formal than the extremely rigorous format of the Distar approach, in that teacher presentations are not necessarily scripted, transitions are not necessarily effected by means of a signal system, and so on.

Direct Instruction as Opposed to Indirect Instruction or to No Instruction. Finally, the literature on direct instruction includes studies and reviews in which that term is used to mean teaching something deliberately--addressing it "straight on," as it were--as opposed to presenting it only indirectly or not at all. Researchers have, for example, asked whether specific vocabulary instruction is preferable to learning vocabulary words inferentially through encountering them repeatedly in the context of stories read. Researchers and reviewers who use the term direct instruction in this way are not referring to any particular collection of teaching behaviors. Rather, they apply this term to virtually any teaching approach that involves putting the things to be learned directly before the student, and addressing these things straightforwardly, in contrast to a guided discovery method or to not presenting the material at all. As such, this may be viewed as the least rigorous form of direct instruction.

The research base on direct instruction is, thus, a very diverse one. For the present analysis, forty-two documents were selected for examination from a large computerized and manual search effort. Of these, nine reports were not included in the in-depth review process owing to poor design or other disqualifying factors.

Of the 33 valid and relevant documents, two were concerned with kinder-

garten children, ten with primary age children, seven with both primary and

intermediate, nine with upper elementary, two with secondary, two with

elementary and secondary and one with an unspecified age/grade level.

Fourteen reports focused on students in general, and 13 focused on a

particular category of students, such as the socioeconomically disadvantaged

(13), educable special education students (4), and remedial upper elementary

students (2). The single most common type of study had to do with

disadvantaged primary level children.

Outcome areas in which student progress was measured included reading/

language arts (11 reports), mathematics (2), several basic skill areas (11), a

combination of achievement and affective measures (6), values (1), self-

control (1) and self-concept (1).

As for the meaning intended by the term "direct instruction", eight of the

documents reviewed had to do with the effects of the Distar model, 13 with

direct instruction used to denote an agreed-upon set of teaching behaviors,

and 12 with direct instruction used to mean most any instructional format in

which the learning material is addressed directly rather than indirectly.

Findings

The analysis of studies and reviews on the Direct Instruction System for

Teaching and Remediation (Distar) led immediately and, one might say,

ectly, to the hypothesis that <u>use of Distar programs with disadvantaged,</u>

<u>mary level chidren has a positive effect on the basic skill achievement and</u>

<u>affective development of those children.</u> All but one of the reports which

were concerned with these prog   support this hypothesis. Whether

effectiveness of the Distar mo   was compared with that of other Follow

Through models, with non-Follow Through models or with no-intervention control groups, Distar students consistently outperformed comparison students in all basic skill areas. Data on use of these programs also indicate that they confer benefits upon student self-concept and attitudes toward school generally or toward particular school subjects. And while the present search and retrieval effort did not produce a great deal of data on the use of Distar programs with educable special education students, those reports which did address such use found the programs very effective for fostering basic skill development and IQ increases among these students.

As for the longer-term effects of disadvantaged students' participation in Distar programs, researchers have found that when the intensive and highly structured learning experiences offered by these programs are withdrawn, two things occur: Students maintain an achievement lead over socioeconomically comparable students who were not instructed with Distar in the primary grades, but they begin to fall behind their middle and upper class schoolmates and behind national norms. For this reason, some educators have advocated that these children continue to be offered the kind of tightly structured, interactive instruction provided by the Distar programs on into the intermediate grades.

The several studies and reviews which lent support to the hypothesis were of high quality and leave little doubt about the efficacy of the Distar model in promoting basic skill achievement among disadvantaged primary age students.[2]

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[2]It may be well to mention at this point that while the Research on School Effectiveness Project is not usually in the business of reviewing particular educational programs, and certainly has no product advocacy role, a review of research on direct instruction would not be complete without including the findings which have emerged from the research on the Distar model programs.

A second hypothesis emerging from the research examined is that use of the teaching strategies and behaviors collectively termed "direct instruction" has a positive effect on the basic skill achievement of primary and upper elementary level children. A great deal of well-designed research has been organized around this concept of direct instruction, and this research is virtually unanimous in its support of the hypothesis. Because so many different kinds of studies lend support to this hypothesis, quoting directly from some of them might provide the best sense of the efficacy of this instructional approach. In one large-scale review, for example, "teachers who most successfully promoted achievement gain...approached the subject matter in a direct, businesslike way, organized learning around questions they posed, an' occupied the center of attention." In a study of inner-city children, successful teachers were those whose behaviors included "having students repeat poor work until it is satisfactory, circulating around the room during seatwork periods and correcting students' work, discourgaging student movement about the classroom, and viewing one's role primarily as teaching and explaining subject matter..." A research review involving older students generally replicated the findings of research conducted with primary level children and suggested that, in the reviewer's words, "direct instruction may be the most effective method at any grade level when mastery of basic skills is the goal."

Direct instruction, when the term is used to denote this general set of teaching behaviors, was consistently found to produce results superior to those obtained when less direct teaching approaches were used. This finding emerged from studies involving students generally, disadvantaged students, remedial students and special education students; in various basic skill areas; and for both younger and older students. The reports which support

this hypothesis include those concerned with the Distar model programs, since those programs clearly meet and even exceed the criteria for direct instruction as the term is used here. Though not included among the support materials for the present report, two previous reports in this series also provided evidence for the efficacy of this form of direct instruction.[3]

Next we come to that group of studies and reviews which compared either a no-instruction approach or an indirect approach with a direct approach and defined the latter as direct instruction. As referenced earlier in this paper, this use of the term direct instruction does not specify any particular group of teaching behaviors; it merely differentiates between addressing the learning material intentionally/deliberately and addressing it less straight-forwardly or not at all. The majority of studies support the hypothesis which emerged, namely that <u>higher achievement results when skills and concepts are taught directly than when they are presented indirectly or not at all</u>. In a sense, this hypothesis and the research which led to its development would appear to belabor the obvious, as it stands to reason that that which is best learned is that which is most taught. In another sense, however, it is well worth investigating and reporting on the relative efficacy of direct and non-direct teaching, because of the many currently used educational approaches which are either deliberately indirect (discovery learning) or indirect by default.

What the research says is that the belief that students will learn inferentially and incidentally through close, prolonged contact with academic material is simply not well-founded. The researchers who have examined these differing approaches have found that virtually all students learn better when

[3]See Kathleen Cotton and W.G. Savard, Instructional Grouping: Group Size and Time Factors in Learning, Research on School Effectiveness Project Topic Summary Reports. (Portland, OR: Northwest Regional Educational Laboratory), 1981.

skills and concepts are presented directly, and that some students (e.g., low-ability children, special education students) can only learn in this way. The studies on the Distar model programs and those concerned with direct instruction as a set of teaching behaviors are included among the supporting documents for this hypothesis, as both of these categories represent forms of direct instruction as it is used here. Those studies which found no difference between approaches or which favored an indirect approach were fewer in number, less highly rated or concerned with educational situations in which basic skill instruction was not the major focus (e.g., junior high school English). Those researchers who sought to explain the superiority of direct instructional approaches tended to feel that the cognitive sophistication of small children and of many older children is simply not adequately developed for them to learn via an inferential discovery approach. To get the message, they must be given it.

Most of the studies and reviews examined in preparation for this report had to do with student achievement in one or more basic skill areas. Some, however, dealt with learning in other, more subjective areas, or with both basic skill development and other kinds of learning. Analysis of these reports led to the hypothesis that <u>direct instruction is inappropriate for some educational settings, especially those involving older students and learning activities beyond basic skill development.</u> Findings about learning situations for which direct instruction is not appropriate can be said to have emerged gratuitiously from some of the studies reviewed, as none of the researchers began by looking for settings which were not amenable to direct instructional techniques. In the course of investigating the effects of direct instruction (in any of the major ways this term is used), several researchers noted that its utility is not universal. As one investigator put

it, "It is important to recognize that direct instruction has little research base from which to discuss other desirable educational attainments, such as creativity and self-evaluation." It was also found that many older students and higher-ability st' ents, while they can benefit from many of the component parts of a direct instruction approach, tend to respond better and learn more with indirect questioning techniques and other methods which allow them to make connections and discover the underlying principles of the learning material presented to them.

Conclusions

Analysis of the findings concerning the various forms of direct instruction lead to several conclusions. These are organized according to the different ways the term direct instruction is used in the research literature.

Distar programs in reading, arithmetic and language are effective in building basic skills among socioeconomically disadvantaged, primary age children. While the developers of these programs do not assume all such children to have poor language skills and lower arithmetic aptitudes, they do recognize that there is a higher probability that these children's general experience will be narrower and that they will enter school with less family-initiated teaching of academic and pre-academic skills than other children. Distar programs, with their focu on tightly structured lessons, small and assimilable units of information, extensive drill and emphasis on teacher-student interaction, have been shown to be highly effective in compensating for the deficits commonly experienced by disadvantaged children. Because of the interactive focus and the opportunity to demonstrate skill mastery, the programs also enhance the childrens' self-esteem and their attitudes toward school. While they have some degree of staying power, as

determined by the later school performance of students instructed with them, these programs do not have the power to prevent these students from falling behind their socioeconomically more fortunate counterparts over time. It may be that no educational program could produce such a long-term compensatory effect. Distar programs are also very effective for instructing low-ability children and educable special education students in the primary and upper elementary grades.

Direct instruction, as that term is used to denote the agreed-upon set of teaching strategies and behaviors described earlier, is very effective for promoting basic skill development among students generally. When teachers set and articulate learning goals, offer highly structured lessons, ask questions which are specific and narrow in scope, provide corrective feedback, and communicate affection and support to students, achievement results are superior to those obtained with other, less direct methods. All kinds of primary and upper elementary level students appear to achieve more in basic skill areas with this instructional approach, and students with learning problems resulting from handicaps, language barriers or limited background experiences seem to benefit most of all.

Direct instruction, as the term is used to denote addressing learning material straightforwardly, is more effective in promoting student achievement than are educational practices in which the things to be learned are addressed indirectly or not at all. This conclusion does not convey much information about what teaching strategies to use, but it does carry implications about which ones not to use, at least for fostering the development of basic skills. Students in general appear to require direct teaching in order to master these skills with maximum efficiency, thoroughness and permanence; and some students can only learn via a direct method.

Very bright students, very mature students, many older students and students working in many areas beyond the basic skills do not derive maximum benefits from a direct instructional approach. Direct instruction, as that term refers to any of the major instructional approaches described in this paper, is irrelevant to some educational, purposes, restrictive for some school subjects, and an affront to the learning capacity of some students. One reviewer, after discussing the virtues of direct instruction for many purposes, comments that "direct instruction may not be the best approach, or even appropriate, for some curricular areas that do not involve skill mastery, but instead seel to promote appreciation, general familiarity, enrichment, or student personal development."

Recommendations

In light of the findings and conclusions emerging from research on direct instruction, the following recommendations are offered:

1. The Distar programs should be reviewed for potential use in school characterized by large populations of socioeconomically disadvantaged primary age students. Personnel in schools with smaller populations of such students might also consider the use of these programs in adjunctive, compensatory classes for them.

2. As the Distar programs appear to be very helpful to learning disabled, mildly mentally retarded and other educable special education students, special education program coordinators and teachers are encouraged to consider using these programs with these populations.

3. Educational personnel at all levels are encouraged to become familiar with the group of teaching strategies and behaviors collectively termed "direct instruction," and teachers are encouraged to apply these to their classroom teaching.

4. Those who are planning to adopt an educational program for preschool or primary level children, or to make changes in the kinds of instruction offered these children, should select programs in which direct instructional methods are required or implied, if basic skill development for these children is a major goal.

5.   Educators should not proceed from the assumption that students will
     infer meanings, understandings and messages when these are offered by
     implication via indirect teaching methods. Students in one study did
     not experience a reduction in their ethnic stereotyping when they
     learned about Puerto Rican playwrights, Jewish athletes, and black
     physicist.; they experienced a reduction in their ethnic stereotyping
     when they studied ethnic stereotyping.

6.   Policymakers and other educators should not make a goal of applying
     direct instructional methods to all students and all curricular
     areas. Advanced students and more subjective fields of study require
     the opportunity for exposure to the material, indirect instructional
     methods and an open-ended attitude toward outcomes, in order for
     appreciation and creativity to develop.

DIRECT INSTRUCTION
Decision Display
#1

Restatement of issue as a hypothesis:

Use of Distar (Direct Instruction System for Teaching and Remediation) programs with disadvantaged, primary level children has a positive effect on the basic skill achievement and affective development of those children.

Item Number	Short Title	Quality Rating of Study (5=High)

Items which tend to support hypothesis:

250	Becker, 1976, Direct Instruction Data Analysis	[4]
253	Singer, 1973, Structured Kindergarten Instruction	[4]
259	Becker & Gersten, 1981, Later Effects of DIFT	[4]
261	Gersten & Carnine, 1981, Direct Instruction Math	[4] (nearly all studies support)
274	Gersten, 1981, Distar in Special Education	[4] (nearly all studies support)
252	Patching, 1979, Critical Reading Skills	[3]
258	Duran, 1980, Hispanic Reading Study	[3]

(See also Item No. 280.)

Items which tend to deny hypothesis:

    None

Items which are inconclusive regarding the hypothesis:

| 286 | House, et al., 1978, Follow Through Critique | [4] |

Items which were excluded because they were weak:

    None

Items which were excluded because they were judged to be irrelevant to this hypothesis:

153	Rosenshine, n.d., Academic Engaged Time
246	Fedigan & Gay, 1978, Alberta Research Reviews
247	Beck, 1979, Instructional Ingredients
248	Murnane & Phillips, 1979, Effective Inner City Teachers
249	Greedy, 1975, Spelling Research Reviews
251	Rosenshine, 1976, Teacher Behavior Research
254	Venezky, 1975, Prereading Skills
255	Berliner & Rosenshine, 1976, Knowledge Acquisition
256	Jenkins, et al., 1978, Vocabulary and Reading Study
257	Brophy, 1979, Teacher Effectiveness Research
260	O'Donnell & Smith, 1973, Syntactic Structure
262	Calfee & Pionowski, 1981, Reading Diary
263	Becher, 1980, Teacher Behavior & Math Achievement
264	Meyer & Cohen, 1975, General Reading vs. Direct Instruction
265	Oliver, 1973, High Intensity Practice
266	Becker, 1977, Field Research on Reading
267	Freeman, et. al., 1981, Countering Ethnic Stereotypes
268	Wicker & Tyler, 1975, Improving Locus of Control
269	Grusec, et. ., 1978, Altruism
270	Corno, et al., 1981, Student Self Appraisals
271	Evertson, et al., 1980, Jr. High Math & English
272	Au, 1980, Comprehension-Oriented Reading
273	Haisley & Perino, 1977, "K"indergarten Study
275	Pany & Jenkins, 1977, LD Comprehension Study
276	Stallings, 1981, Secondary Research Review
277	Schneider, 1981, School Improvement
278	Cotton, 1982, Effective Spelling Instruction
279	Good, 1979, Elementary Teacher Effectiveness
281	Carnine & Englemann, 1982, Direct Instruction Operations
282	Medley, 1977, Teacher Competence and Effectiveness
283	Leo & Sahraie, 1981, Improving Teaching
284	Sorge & Kline, 1973, College Instructor Behavior
285	Glenn & Ellis, 1982, Direct vs. Indirect Teaching

Restatement of issue as a hypothesis:

Use of the teaching strategies and behaviors collectively termed "direct instruction" has a positive effect on the basic skill achievement of primary and upper elementary level children.

Item Number	Short Title	Quality Rating of Study (5=High)	

Items which tend to support hypothesis:

279	Good, 1979, Elementary Teacher Effectiveness	[5]	(data from over 50 studies)
282	Medley, 1977, Teacher Competence and Effectiveness	[5]	(majority of studies support)
153	Rosenshine, n.d., Academic Engaged Time	[4]	(nearly all studies support)
250	Becker, 1978, Direct Instruction Data Analysis	[4]	
253	Singer, 1973, Structured Kindergarten Instruction	[4]	
257	Brophy, 1979, Teacher Effectiveness Research	[4]	(data from over 20 studies support)
259	Becker & Gersten, 1981, Later Effects of DIFT	[4]	
261	Gersten & Carnine, 1981, Direct Instruction Math	[4]	(majority of studies support)
270	Corno, et al., 1981, Student Self Appraisals	[4]	
271	Evertson, et al., 1980, Jr. High Math & English	[4]	(math part of study supports)
274	Gersten, 1981, Distar in Special Education	[4]	(data from 12 studies support)
276	Stallings, 1981, Secondary Research Review	[4]	(nearly all studies support)
248	Murnane & Phillips, 1979, Effective Inner City Teachers	[3]	
251	Rosenshine, 1976, Teacher Behavior Research	[3]	(nearly all studies support)
252	Patching, 1979, Critical Reading Skills	[3]	
255	Berliner & Rosenshine, 1976, Knowledge Acquisition	[3]	(nearly all studies support)
268	Wicker & Tyler, 1975, Improving Locus of Control	[3]	
277	Schneider, 1981, School Improvement	[3]	(majority of studies support)
283	Leo & Sahraie, 1981, Improving Teaching	[3]	(majority of studies support)

(See also Item No. 280.)

Item Number	Short Title	Quality Rating of Study [ ]

Items which tend to deny hypothesis:

None

Items which are inconclusive regarding the hypothesis:

271   Evertson, et al., 1980, Jr. High Math & English   [4] (English part of study inconclusive)

263   Becher, 1980, Teacher Behavior & Math Achievement   [2]

Items which were excluded because they were weak:

None

Items which were excluded because they were judged to be irrelevant to this hypothesis:

246   Fedigan & Gay, 1978, Alberta Research Reviews
247   Beck, 1979, Instructional Ingredients
249   Geedy, 1975, Spelling Research Review
254   Venuzky, 1975, Prereading Skills
256   Jenkins, et al., 1978, Vocabulary and Reading Study
260   O'Donnell & Smith, 1979, Syntatic Structure
262   Calfee & Piontkowski, 1981, Reading Diary
264   Meyer & Cohen, 1975, General Reading vs. Direct Instruction
265   Oliver, 1973, High Intensity Practice
266   Becker, 1977, Field Research on Reading
267   Freedman, et al., 1981, Countering Ethnic Stereotypes
269   Grusec, et al., 1978, Altruism
272   Au, 1980, Comprehension-Oriented Reading
273   Haisley & Perino, 1977, "K"indergarten Study
275   Pany & Jenkins, 1977, LD Comprehension Study
278   Cotton, 1982, Effective Spelling Instruction
281   Carnine & Englemann, 1982, Direct Instruction Operations
284   Sorge & Kline, 1973, College Instructor Behavior
285   Glenn & Ellis, 1982, Direct vs. Indirect Teaching
286   House, et al., 1978, Follow Through Critique

DIRECT INSTRUCTION
Decision Display
#3

Restatement of issue as a hypothesis:

Higher achievement results when skills and concepts are taught directly than
when they are presented indirectly or not at all.

Item Number	Short Title	Quality Rating of Study (5=High)

Items which tend to support hypothesis:

279	Good, 1979, Elementary Teacher Effectiveness	[5] (data from over 50 studies support)
282	Medley, 1977, Teacher Competence and Effectiveness	[5] (majority of studies support)
153	Rosenshine, n.d., Academic Engaged Time	[4] (nearly all studies support)
250	Becker, 1978, Direct Instruction Data Analysis	[4]
253	Singer, 1973, Structured Kindergarten Instruction	[4]
257	Brophy, 1979, Teacher Effectiveness Research	[4] (data from over 20 studies support)
259	Becker & Gersten, 1981, Later Effects of DIFT	[4]
261	Gersten & Carnine, 1981, Direct Instruction Math	[4] (majority of studies support)
270	Corno, et al., 1981, Student Self Appraisals	[4]
271	Evertson, et al., 1980, Jr. High Math & English	[4]
274	Gersten, 1981, Distar in Special Education	[4] (data from 12 studies support)
276	Stallings, 1981, Secondary Research Review	[4] (nearly all studies support)
248	Murnane & Phillips, 1979, Effective Inner City Teachers	[3]
249	Geedy, 1975, Spelling Research Review	[3] (majority of studies support)
251	Rosenshine, 1976, Teacher Behavior Research	[3] (nearly all studies support)
252	Patching, 1979, Critical Reading Skills	[3] (Distar superior to no-intervention)
255	Berliner & Rosenshine, 1976, Knowledge Acquisition	[3] (nearly all studies support)

Item Number	Short Title	Quality Rating of Study [ ]

Items which tend to support hypothesis: -- Cont'd

258	Duran, 1980, Hispanic Reading Study	[3]
262	Calfee & Piontkowski, 1981, Reading Diary	[3]
268	Wicker & Tyler, 1975, Improving Locus of Control	[3]
273	Haisley & Perino, 1977, "K"indergarten Study	[3]
277	Schneider, 1981, School Improvement	[3] (majority of studies support)
278	Cotton, 1982, Effective Spelling Instruction	[3] (majority of studies support)
283	Leo & Sahraie, 1981, Improving Teaching	[3] (majority of studies support)
285	Glenn & Ellis, 1982, Direct vs. Indirect Teaching	[3]
246	Fedigan & Gay, 1978, Alberta Research Reviews	[2] (majority of studies support)
256	Jenkins, et al., 1978, Vocabulary and Reading Study	[2] (for vocabulary development)
267	Freedman, et al., 1981, Countering Ethnic Stereotypes	[2]
275	Pany & Jenkins, 1977, LD Comprehension Study	[2] (for vocabulary development)

(See also Item No. 280.)

Items which tend to deny hypothesis:

252	Patching, 1979, Critical Reading Skills	[3]
264	Meyer & Cohen, 1975, General Reading vs. Direct Instruction	[3]
256	Jenkins, et al., 1978, Vocabulary and Reading Study	[2] (for comprehension)
265	Oliver, 1973, High Intensity Practice	[2]
275	Pany & Jenkins, 1977, LD Comprehension Study	[2] (for recall of story facts)

Items which are inconclusive regarding the hypothesis:

263	Becher, 1980, Teacher Behavior & Math Achievement	[2]

Items which were excluded because they were weak:

284	Sorge & Kline, 1973, College Instructor Behavior	

Items which were excluded because they were judged to be irrelevant to this hypothesis:

247	Beck, 1979, Instructional Ingredients
254	Venezky, 1975, Prereading Skills
259	Becker & Gersten, 1981, Later Effects of DIFT
266	Becker, 1977, Field Research on Reading
269	Grusec, et al., 1978, Altruism
272	Au, 1980, Comprehension-Oriented Reading
281	Carnine & Englemann, 1982, Direct Instruction Operations
286	House, et al., 1978, Follow Through Critique

Restatement of issue as a hypothesis:

Direct instruction is inappropriate for some educational settings, especially those involving older students and learning activities beyond basic skill development.

Item Number	Short Title	Quality Rating of Study (5=High)

Items which tend to support hypothesis:

279	Good, 1979, Elementary Teacher Effectiveness	[5] (data from over 50 studies support)
257	Brophy, 1979, Teacher Effectiveness Research	[4] (data from over 20 studies support)
271	Evertson, et al., 1980, Jr. High Math & English	[4]
251	Rosenshine, 1976, Teacher Behavior Research	[3] (nearly all studies support)

Items which tend to deny hypothesis:

    None

Items which are inconclusive regarding the hypothesis:

    None

Items which were excluded because they were weak:

284   Sorge & Kline, 1973, College Instructor Behavior

Items which were excluded because they were judged to be irrelevant to this hypothesis:

153   Rosenshine, n.d., Academic Engaged Time
246   Pedigan & Gay, 1978, Alberta Research Reviews
247   Beck, 1979, Instructional Ingredients
248   Murnane & Phillips, 1979, Effective Inner City Teachers
249   Geedy, 1975, Spelling Research Review
250   Becker, 1978, Direct Instruction Data Analysis
252   Patching, 1979, Critical Reading Skills
253   Singer, 1973, Structured Kindergarten Instruction.
254   Venezky, 1975, Prereading Skills
255   Berliner & Rosenshine, 1976, Knowledge Acquisition
256   Jenkins, et al., 1978, Vocabulary and Reading Study
258   Duran, 1980, Hispanic Reading Study
259   Becker & Gersten, 1981, Later Effects of DIFT
260   O'Donnell & Smith, 1979, Syntatic Structure
261   Gersten & Carnine, 1981, Direct Instruction Math
262   Calfee & Piontkowski, 1981, Reading Diary
263   Becker, 1980, Teacher Behavior & Math Achievement
264   Mayer & Cohen, 1975, General Reading vs. Direct Instruction
265   Oliver, 1973, High Intensity Practice
266   Becker, 1977, Field Research on Reading
267   Freedman, et al., 1981, Countering Ethnic Stereotypes
268   Wicker & Tyler, 1975, Improving Locus of Control
269   Grusec, et al., 1978, Altruism
270   Corno, et al., 1981, Student Self Appraisals
272   Au, 1980, Comprehension-Oriented Reading
273   Haisley & Perino, 1977, "K"indergarten Study
274   Gersten, 1981, Distar in Special Education
275   Pany & Jenkins, 1977, LD Comprehension Study
276   Stallings, 1981, Secondary Research Review
277   Schneider, 1981, School Improvement
278   Cotton, 1982, Effective Spelling Instruction
280   Becker & Carnine, 1980, Direct Instruction Follow Through
281   Carnine & Englemann, 1982, Direct Instruction Operations
282   Medley, 1977, Teacher Competence and Effectiveness
283   Leo & Sahraie, 1981, Improving Teaching
284   Sorge & Kline, 1973, College Instructor Behavior
285   Glenn & Ellis, 1982, Direct vs. Indirect Teaching
286   House, et al., 1978, Follow Through Critique

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250 Becker, W.C. Symposium on direct instruction: the Follow
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     others. Paper presented at the annual meeting of the
     American Educational Research Association, Toronto,
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     No. ED 146 156)

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Item No.	Citation

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        16, 346-373.

281   Carnine, D.W., & Engelmann, S. The Direct Instruction Model
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Item No.	Citation

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Item No.	Citation

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 153   LOCATION: NWREL Dissemination Program

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Rosenshine, B.V. Academic engaged time, content covered, and
          direct instruction. University of Illinois, n.d.

DESCRIPTORS: Direct Instruction, Time Factors (Learning)

SHORT TITLE: Rosenshine, n.d., Academic Engaged Time

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE X   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a very good review which clearly restates the important findings and
conclusions emerging from the research.

SYNOPSIS:

This is a review/analysis of research on the effects of instructional time and
teaching methods on the reading and mathematics achievement of students in
grades 1-5 in the U.S. It is "both a summary and expansion of three previous
papers: Rosenshine (1976), Berliner and Rosenshine (1977) and Rosenshine and
Berliner (1977)."

RESEARCHER'S FINDINGS:

Of 15 studies of "content covered or opportunity to learn," all but one found
significant relationships between content covered and student achievement gain.

Student attention or engagement was also strongly related to achievement.

"In studies which consider only allocated time, most of the results tend to be
non-significant."

"Teachers who most successfully promoted achievement gain...approached the
subject matter in a direct, businesslike way, organized learning around
questions they posed, and occupied the center of attention." Student choice
of activities yielded negative results.

Teachers working with small groups (3-7 students) or large groups was
positively related to achievement; teachers working with three students or
less was negatively related to class achievement gain.

RESEARCHER'S CONCLUSIONS:

The author cautions that the studies reviewed are of varying qualities. He
also emphasizes "the need to proceed with caution in implementing [the
findings emerging from the studies] into teacher training programs or into
evaluative checklists for teachers."

Content covered and student engaged time are the most consistently reliable
predictors of achievement.

"There are no lists of essential teacher behaviors, nor is it claimed that any
one type of teaching method or style is inherently superior... The primary
goal of the teacher is obtaining 'sufficient' student content covered and
academically engaged minutes."

REVIEWER'S NOTES AND COMMENTS:

None.

3-

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 246   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Fedigan, L., & Gay, G. School-based elements related to
           achievement and elements related to student success in schooling
           and education. Executive Summary: Two Reviews of the Literature
           Commissioned by the Minister's Advisory Committee on Student
           Achievement. Edmonton, Alberta: Alberta Department of Education,
           1978. .(ERIC/EDRS No. ED 181 042)

DESCRIPTORS: Direct Instruction, Educational Environment, Family Environment,
              Mastery Learning

SHORT TITLE: Fedigan & Gay, 1978, Alberta Research Reviews

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE _X_   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   [2]   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

Detail is sparse concerning the studies reviewed.

SYNOPSIS:

Two literature reviews on the effects of educational and environmental factors
on student achievement are summarized in this report. In the Gay review 55
studies, most of which were conducted in the U.S., were examined and their
findings summarized in a series of charts. In the Fedigan review an
unspecified number of American, Canadian and British studies were examined and
discussed.

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RESEARCHER'S FINDINGS:

Factors identified by Gay as having a positive effect on student achievement
include: (1) middle or high socio-economic status; (2) having both parents in
the home; (3) positive parent attitudes toward education; (4) use of books 'n
the home; (5) higher teachers' salaries; (6) more teacher training; teach
emphasis on cognitive development; (7) higher teacher expectations of
students; (8) greater teacher warmth; (9) better teacher control of classes,
etc. Factors negatively related to achievement include: (1) large district
enrollment; (2) large family size; (3) lack of library services; (4)
overcrowded housing; (5) juvenile deliquency, etc. Factors unrelated to
achievement included: (1) attendance rate; (2) student sex; (3) school
facilities and space; (4) class size; (6) per pupil expenditure; and (7) age
of teachers.

Fedigan found that direct instructional methods are positively related to
achievement, especially for low socio-economic status students and especially
in the primary grades. The studies reviewed also showed that teacher
expectations influence student performance. No particular curriculum was
favored over any other. The mastery learning approach was shown to be
especially effective.

RESEARCHER'S CONCLUSIONS:

"Both Drs. Fedigan and Gay found that the research about the effects of
various factors on achievement is inconclusive... Both reported that
environmental or non-school-based elements...have a substantial relationship
to achievement, while educational or school-based elements may have a less
substantial and more inconsistent relationship... Both views, point out the
significance of the interaction between educational and environmental factors."

REVIEWER'S NOTES AND COMMENTS:

None.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 247   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Beck, I.L. Instructional ingredients for the development of
beginning reading competence. Volume 5 of: What Do We Know About
Teaching and Learning in Urban Schools? St. Louis: CEMREL, Inc.,
1979. (ERIC/EDRS No. ED 185 161)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Beck, 1979, Instructional Ingredients

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS _X_

RELEVANT ___   IRRELEVANT _X_ FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak) 1   2   3   4   5 (Strong)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

This paper provides the author's conclusions about beginning reading
instruction based on a review of research and an analysis of the
characteristics of various reading programs. It is not a study or review of
studies.

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RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

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ITEM NUMBER: 248   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Murnane, R.J., & Phillips, B.R. Effective teachers of inner city
           children: Who they are and what they do. Washington D.C.:
           National Institute of Education, June 1979.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Murnane & Phillips, 1979, Effective Inner City Teachers

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

      (Weak) 1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This study is well designed and has important implications for instruction of
inner city children.

SYNOPSIS:

This study utilized two different research methodologies to determine what
factors are present in the effective vocabulary skill development of
elementary students. Black children in grades 3-6 whose families were
participants in a federal welfare reform project comprised the sample. Data
on the school and students were collected from school records. Interviews
with parents produced data on demographic and home characteristics. Data on
teacher characteristics were gathered via teacher questionnaires.

30

RESEARCHER'S FINDINGS:

Teaching behaviors systematically related to student learning are those which
are collectively termed direct instruction. These include having students
repeat poor work until it is satisfactory, circulating around the room during
seatwork periods and correcting students' work, discouraging student movement
about the classroom, viewing one's role primarily as teaching and explaining
subject matter, and (at least for some grades) spending the majority of time
in whole-class or individualized (as opposed to small group) instruction.

RESEARCHER'S CONCLUSIONS:

"Our results provide some support for the direct-instruction hypothesis. This
support must be considered tentative because the values and significance of
the individual coefficients vary across grade levels."

REVIEWER'S NOTES AND COMMENTS:

None.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 249   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Geedy, P. What research tells us about spelling. Elementary
           English, 1975, 52, 233-236.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Geedy, 1975, Spelling Research Reviews

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE _X_   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   .   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

More detail on the research studies reviewed would be helpful, but this is
nevertheless a good review.

SYNOPSIS:

This is a review of research on the development of spelling skills. The
reviewer cites research findings on approaches which have been shown to be
effective in developing spelling skills and references particular models and
programs which incorporate these approaches.

RESEARCHER'S FINDINGS:

Research on spelling skill development indicates that language arts instruction, in order to be maximally effective, needs to include direct, systematic instruction in spelling, especially in the case of students of below-average ability in spelling.

There is general agreement that 15 to 20 minutes daily should be devoted to the direct teaching of spelling from the middle of the second grade through the completion of elementary school.*

Studies show that it is more efficient to study words from lists rather than in context, but they also emphasize that an effective language arts program needs to incorporate direct teaching of spelling words with teaching the words in a meaningful context.

RESEARCHER'S CONCLUSIONS:

"Research indicates that no one channel or approach is an effective answer to the question of how to teach children to spell. Each discipline can suggest means to make the process more successful and meaningful to children. The application of these theories requires orchestration by a knowledgeable and sensitive teacher."

REVIEWER'S NOTES AND COMMENTS:

A copy of the review may be found in the Direct Instruction backup file.

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*The present reviewer recently completed a spelling research review and found that most researchers and theorists favored 60-75 minutes per week as the maximum instructional time. (See Item Report No. 276.) This researcher's others findings are in tune with spelling research generally.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 250   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Becker, W.C. Symposium on direct instruction: the Follow Through
          data show that some programs work better than others. Paper
          presented at the annual meeting of the American Educational
          Research Association, Toronto, Ontario, March 1978. (ERIC/EDRS No.
          ED 173 363)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Becker, 1978, Direct Instruction Data Analysis

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

This analysis was well done and convincingly reflects portions of the report
which inspired it.

SYNOPSIS:

In 1979 a report on the Project Follow Through Planned Variation Experiment
was published by Abt Associates. This report compared several Follow Through
models in terms of their effectiveness in promoting student achievement and
affective development. Then in 1978 a blue-ribbon panel critiqued the Abt
report and drew conclusions contrary to the Abt findings. The panel's
conclusions included: (1) instructional models that emphasize basic skills
are no more effective than other approaches; and (2) Follow Through
participation made no difference in student outcomes. The panel agreed with
Abt that the effectiveness of a teaching approach varied greatly from district
to district.

40.

In this paper the author reanalyzed the data and took issue with the panel's
conclusions about one of the approaches studied, the Direct Instruction
Model. It should be noted that the author is co-developer of this model.

RESEARCHER'S FINDINGS:

The author's analysis revealed that the panel had misclassified much of the
data, made inaccurate statements about sample size. Reanalyzing the data with
these errors corrected, the author found that: (1) Direct Instruction showed
substantial positive effects on basic skill development; and (2) this model
ranked first among the models studied in promoting positive affective outcomes.

RESEARCHER'S CONCLUSIONS:

"...the Direct Instruction Model [was shown] to be effective in comparison to
traditional programs...and in comparison to the other model approaches to
compensatory education having the same resources available... Direct
Instruction was more effective than any of the other Follow Through models,
and the degree of effectiveness was non-trivial."

REVIEWER'S NOTES AND COMMENTS:

See Item No. 286 for an abstract of the panel's report.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 251   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Rosenshine, B. Recent research on teaching behaviors and student
          achievement. Journal of Teacher Education, 1976, 27, 61-64.

DESCRIPTORS: Direct Instruction, Teacher Behavior

SHORT TITLE: Rosenshine, 1976, Teacher Behavior Research

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE _X_   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

It would be useful to have more detail on the studies reviewed; however, the
review is a clear presentation of findings from the work of major researchers
in the area of teacher effectiveness.

SYNOPSIS:

In this article the author focused on studies from the recent past which were
concerned with the relationship between classroom instruction and student
achievement. The work of 12 researchers or research groups were the focus of
the investigation. The topical areas discussed were: (1) classroom
questioning, (2) tutoring, (3) degree of implementation, (4) generic and
specific teaching skills, (5) factors affecting achievement of low SES
students in the primary grades, and (6) direct instruction for low SES
students.

Direct instruction was described by the author as follows: "...a great deal
of time is spent on academic activities, with a predominance of seatwork using
structured materials. Teacher and workbook questions are narrow and direct,
usually with a single correct answer. Teachers and materials provide
immediate feedback using praise and acknowledgement of student answers.
Students work in groups supervised by the teacher with little free time or
unsupervised activity..."

42

RESEARCHER'S FINDINGS:

Questioning: Low ability students achieved more when they worked with direct questions; higher ability students achieved more when questioning techniques involved probing and redirection.

Tutoring: The results of studies on tutoring were inconclusive about the value of this met od.

Implementation: Teacher implementation of programs becomes more refined and stable (less mechanical) as they gain experience. The relationship to student outcomes was not investigated.

Generic/Specific Skills: Studies in this area yielded contradictory findings, and the relationship to student outcomes was not explored.

Studies of Primary Age, Low SES Students: The amount of time spent directly on instruction was significantly related to student achievement in math and reading. The students performed best when factual, single-answer questions were presented to them. Inattention was significantly and negatively related to achievement. Praise affected achievement positively. Student-initiated comments had a negative effect; teacher-initiated comments made no difference.

Direct Instruction: Student achievement and affective outcomes were most positive when the students received direct instruction.

RESEARCHER'S CONCLUSIONS:

The author restated his discoveries in summary form.

REVIEWER'S NOTES AND COMMENTS:

A copy of the journal article may be found in the Direct Instruction backup file.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 252   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Patching, W.G. An investigation of the effect of using Direct
          Instruction procedures to teach three critical reading skills to
          skill deficient grade 5 children. Ph.D. Thesis, University of
          Oregon, Eugene, Oregon, 1979.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Patching, 1979, Critical Reading Skills

SKIMMED, REJECTED FOR PROJE   PURPOSES, NO ANALYSIS ___

RELEVANT X___   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT X___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This study convincingly demonstrated the superiority of the Direct Instruction
method.

SYNOPSIS:

This study examined the effects on students' critical reading skills when:
(1) no skill development activities were undertaken; (2) students were taught
these skills using methods fundamental to the Direct Instruction model
developed at the University of Oregon; (3) students learned via a Workbook and
Corrective Feedback method. Thirty-nine fifth graders who were identified as
deficient in critical reading skills were randomly assigned to the three
groups, and experimental students were individually instructed in three
critical reading skills. Each skill was presented in a 30-minute lesson.
Three post-tests, one for each skill area, were administered to experimental
and control students.

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RESEARCHER'S FINDINGS:

The Direct Instruction method was significantly more effective than either the
Workbook with Corrective Feedback method or the no-intervention condition.

No significant difference was found between the performances of the Workbook
with Corrective Feedback and the no-intervention groups.

RESEARCHER'S CONCLUSIONS:

The Direct Instruction method was more effective for teaching each of the
three skills than either of the other formats.

REVIEWER'S NOTES AND COMMENTS:

A copy of the abstract may be found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 253   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Singer, B. The effects of structured instruction on kindergarten
          pupils. Final report. USOE Region II, May 1973. (ERIC/EDRS No.
          ED 087 564)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Singer, 1973, Structured Kindergarten Instruction

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

Design, data analysis and presentation of evidence were very carefully
executed.

SYNOPSIS:

This two-phase study investigated the effects of highly structured language
arts instruction on the intellectual growth, language arts achievement and
school adjustment of middle class kindergarten children. In the first part of
the study 303 children were randomly assigned to four conditions: (1) a
modified Distar Language Program; (2) a modified Distar Reading Program; (3)
the Sullivan Programmed Reading Program; and (4) a traditional kindergarten
program featuring socialization and readiness activities and an unstructured
approach to language arts. Children in the first three conditions were
instructed individually, and all students were tested at the end of the year
following 6 1/2 months of instruction.

In the second part of the study 200 first graders who had participated in part
one were assigned to: (1) the Sullivan Reading Program; (2) the Distar
Reading Program; or (3) the traditional program, involving a phonics program
and basal readers. Children were tested at the beginning and end of first
grade.

RESEARCHER'S FINDINGS:

Distar Language Program children had higher IQ scores and similar general
achievement scores when compared with traditionally instructed children at the
end of kindergarten. There were no differences at the end of first grade.

Distar Reading Program students had higher reading scores and similar spelling
scores when compared with traditionally instructed children at the end of
kindergarten. Distar children performed better on both measures at the end of
first grade than traditionally instructed children.

Sullivan Reading Program children outperformed traditionally instructed
children in both reading and spelling at the end of kindergarten. At the end
of first grade the Sullivan children's scores were higher than the
traditionally instructed children in both areas, though the spelling
differences were not significant.

Children in the three structured instruction conditions did not differ from
traditionally instructed children on school adjustment measures at the end of
kindergarten, but evidenced significantly better adjustment at the end of
first grade.

RESEARCHER'S CONCLUSIONS:

Structured language arts programs are superior to traditional programs for
promoting intellectual development, language arts achievement and school
adjustments.

The researcher's analysis of the data led him to additional conclusions,
including that children below age 6 1/2 can learn to read without adverse
effects and that boys and girls perform equally well with structured
instructional methods.

Recommendations for further research are offered.

REVIEWER'S NOTES AND COMMENTS:

The modifications of the Distar Programs involved an intensification of the
verbal interaction between child and teacher.

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ITEM NUMBER: 254   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Venezky, R.L. Prereading skills: Theoretical foundations and
           practical applications. Madison: Wisconsin University, Research
           and Development Center for Cognitive Learning, May 1975.
           (ERIC/EDRS No. ED 109 663)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Venezky, 1975, Prereading Skills

SKIMMED. REJECTED FOR PROJECT PURPOSES, NO ANALYSIS _X_

RELEVANT ___   IRRELEVANT _X_ FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak) 1 ,   2   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

In this paper the author discusses the importance of prereading skill
development activities and suggests instructional methods. While direct
instructional techniques are favored, this is not a research study on their
efficacy.

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RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

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ITEM NUMBER: 255   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: January 1982

CITATION: Berliner, D.C., & Rosenshine, B. The acquisition of knowledge in
the classroom. Beginning Teacher Evaluation Study, Technical
Report IV-1. San Francisco: Far West Laboratory for Educational
Research and Development, 1976. (ERIC/EDRS No. ED 146 156)

DESCRIPTORS: Direct Instruction, Teacher Behavior, Time Factors (Learning)

SHORT TITLE: Berliner & Rosenshine, 1976, Knowledge Acquisition

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE _X_   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a useful review and one that identifies several major problems in
specifying the relationship between school practices and student outcomes.

SYNOPSIS:

In this paper, the data from several major studies are cited and findings from
them are discussed. Many of the findings from the large-scale Beginning
Teacher Evaluation study are used to draw conclusions about effective teaching
and learning.

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RESEARCHER'S FINDINGS:

Curricula: When the classroom is the unit of analysis, research has shown
that different curricula whose coverage and content emphasis are similar have
similar potential for helping students to acquire knowledge. Such curricula
have been shown to have different potential for facilitating knowledge
acquisition when the individual student is the unit of analysis.

Communication Methods: Different methods (lecture, discussion, CAI, etc.)
were found to have equal potential for facilitating knowledge acquisition.
They are not equal in all ways, however (e.g., efficiency, cost, effect on
motivation, etc.).

Curriculum and Methods: "Knowledge acquisition by students of similar ability
levels will be roughly equivalent, at least when the content and emphasis of
the curricula and methods are similar and the class is the unit of analysis."

Teacher's Role: "...teacher behavior focused on direct instruction results in
increased acquisition of student knowledge and skills."

RESEARCHER'S CONCLUSIONS:

"In general, studies of isolated teacher skills and behavior in natural
classroom environments have not produced much information about how knowledge
is acquired in the classroom. This state of affairs will continue until
investigators engaged in research on teaching have learned how to work with
the concept of appropriateness, define a unit of analysis for the study of
teaching, obtain stable estimates of teacher behavior over occasions, and
perform extensive construct validation."

REVIEWER'S NOTES AND COMMENTS:

In the researcher's view, direct instruction refers to "a set of teaching
behaviors focused on academic matters where goals are clear to students; time
allocated for instruction is sufficient and continuous; content coverage is
extensive; student performance is monitored; questions are at a low cognitive
level and produce many correct responses; and feedback to students is
immediate and academically oriented...the teacher controls instructional
goals, chooses material appropriate for the students' ability level, and paces
the instructional episode. Interaction is characterized as structured but not
authoritarian; rather, learning takes place in a convival academic atmosphere."

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 256   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Jenkins, J.R., Pany, D., & Schreck, J. <u>Vocabulary and reading
          comprehension: Instructional effects.</u> Technical report No. 100.
          Cambridge, MA: Bolt, Baranek and Newman, Inc.; Champaign, IL:
          Center for the Study of Reading, August 1978. (ERIC/EDRS No. ED
          160 999)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Jenkins, <u>et al</u>., 1978, Vocabulary and Reading Study

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   [2]   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

The samples were small and the treatment periods short. In addition, the
researchers themselves cite design factors which might have influenced results.

SYNOPSIS:

The effects of vocabulary instruction on word knowledge, and reading
comprehension were investigated in three experiments. In experiment one,
employing 12 average ability fourth graders, and experiment two, employing 6
learning disabled intermediate level students, word synonyms were taught to
pairs of students on three consecutive days. In experiment three, 10 fourth
grade disabled readers received two to four sessions of vocabulary
instruction. Children in each condition received different amounts of direct
instruction. Experimental children and a no-instruction control group were
post-tested on word knowledge and comprehension.

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RESEARCHER'S FINDINGS:

Both average and disabled readers learned and retained the greatest number of
vocabulary words by "Practice", the treatment involving the greatest amounts
of direct instruction. Learning disabled children experienced significant
vocabulary growth only in the direct instruction condition. Vocabulary
instruction using any of the formats failed to influence comprehension for any
of the experimental groups.

RESEARCHER'S CONCLUSIONS:

"Often, teachers devote some time to introducing new vocabulary prior to
assigning a reading selection. If the primary interest of this practice is to
facilitate their students' comprehension of the forthcoming selection, there
may be cause to reexamine this assumption. If the intent of this practice is
to help students acquire new vocabulary, then it may be wise to consider a
direct instruction format for the vocabulary teaching, especially if the
students are unsophisticated or disabled readers."

REVIEWER'S NOTES AND COMMENTS:

None.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 257   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Brophy, J.E. Advances in teacher effectiveness research.
           Occasional paper No. 18. East Lansing, MI: Michigan State
           University, Institute for Research on Teaching, 1979. (ERIC/EDRS
           No. ED 173 340)

DESCRIPTORS: Direct Instruction, Teaching Methods, Class Organization

SHORT TITLE: Brophy, 1979, Teacher Effectiveness Research

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ____

RELEVANT X   IRRELEVANT ____   FOR PRESENT PURPOSE

PRIMARY SOURCE ____   SECONDARY SOURCE X   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a very good review which clearly captures the approaches to, and
outcomes of, teacher effectiveness research.

SYNOPSIS:

In this review the author discussed findings emerging from six "large-scale
field correlational studies conducted at various elementary levels" and
relates these to subsequent correlational, experimental and observational
studies conducted with students at other levels.

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RESEARCHER'S FINDINGS:

"The data from the [elementary level correlational] studies hang together
quite well to support Rosenshine's...claim that 'direct instruction' is
effective for producing student learning of basic skills...for direct
instruction to be effective, teachers must (1) focus on academic goals; (2)
promote extensive content coverage and high levels of student involvement; (3)
select instructional goals and materials and actively monitor student
progress; (4) structure learning activities to include immediate, academically
oriented feedback; and (5) create an environment that is task oriented but
relaxed."

Classroom management research has shown the effectiveness of instruction _ch
is interactive and highly structured, and has revealed that good management is
an essential feature of good instruction.

Research in junior high and high school settings generally replicates the
findings emerging from research with younger students and "suggests that
direct instruction may be the most effective method at any grade level when
mastery of basic skills is the goal."

RESEARCHER'S CONCLUSIONS:

Direct instruction techniques comprise the most effective approach to
promoting basic skill competence in students K-12.

Direct instruction may not be the best approach, or even appropriate, for
curricular areas that do not involve skill mastery but instead seek to promote
appreciation, general familiarity, enrichment, or student personal development.

REVIEWER'S NOTES AND COMMENTS:

A copy of   e review may be found in the backup file on direct instruction.

ITEM NUMBER: 258   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Duran, E. Teaching reading to disadvantaged Hispanic children
based on direct instruction. Las Cruces, NM: New Mexico State
University, 1980. (ERIC/EDRS No. ED 191 624)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Duran, 1980, Hispanic Reading Study

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   (3)   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a nice, small-scale study, although student exposure to treatment was
minimal.

SYNOPSIS:

This study compared the effects of a direct instruction* bilingual reading
approach with those produced by a regular bilingual program approach.
Participants included 116 first graders in two Southwestern schools. At each
school, half the participants were assigned to the direct instruction
condition and half to the regular bilingual instruction setting. Four
graduate students, two trained in bilingual education and two trained in
direct instruction, provided one hour of reading instruction per week for
eight consecutive weeks. The same content was covered in all classes.
Children were post-tested on their reading mastery of vowels and recognition
of geometric shapes using a test developed by the researcher.

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*Direct instruction was defined as an instructional approach based on the
work of Engleman, Bereiter, Carnine, etc., and involving the use of modeling,
reinforcement, prompting, discrimination learning and correction/feedback for
positive self-concept development.

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RESEARCHER'S FINDINGS:

When all participants were considered, direct instruction students achieved
significantly higher than regular bilingual instruction students. When the
schools were considered separately, the direct instruction students' greater
achievement was very significant at one school and nonsignificant at the other.

RESEARCHER'S CONCLUSIONS:

"...instruction based on principles of direct instruction can improve
beginning bilingual childrens' achievement significantly more than that of
regular bilingual instruction... Bilingual education may be enhanced by
incorporating direct instruction into its teaching method. The positive
effects of direct instruction apply to children from lower as well as from
middle SES family backgrounds."

The researcher recommends that more direct instruction bilingual materials be
developed; that careful assessment/diagnosis procedures be followed; and that
subjects such as math and reading be the focus of direct instructional
approaches, as these require repetition and memory.

REVIEWER'S NOTES AND COMMENTS:

A copy of this report may be found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 259   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Becker, W.C., & Gersten, R. A follow up of Follow Through: The
           later effects of the Direct Instruction Model on children in fifth
           and sixth grades. Washington, D.C.: USOE, April 1981. (ERIC/EDRS
           No. ED 202 601)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Becker & Gersten, 1981, Later Effects of DIFT

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a good analysis which clearly demonstrates the effects of the
instructional approach.

SYNOPSIS:

In this paper, the authors report the results of two studies concerning the
later effects of Direct Instruction Follow Through (DIFT) participation. In
the first study 624 fifth and sixth graders, who had participated in DIFT
programs as primary students, were compared with 567 non-Follow Through
students from similar backgrounds. In the second study, 473 fifth and sixth
grade Follow Through graduates were compared with 403 non-Follow Through
children. Participating students represented black, white and Hispanic
populations and came from both urban and rural areas. Children were tested
using the Metropolitan Achievement Test (Intermediate) and the Wide Range
Achievement Test. Scores of DIFT participants were compared with non-DIFT
children from the same area. Scores were also compared with national norms.

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RESEARCHER'S FINDINGS:

When compared with non-DIFT participants, DIFT children had consistently
higher scores on reading decoding, spelling and math problem solving. Effects
for other areas tested also favored DIFT children, but more moderately.
"Overall, there is reasonable evidence of significant later effects..."

"There are two basic findings to this study. The first is that there is
evidence that in most domains assessed by standardized achievement tests, low
income graduates of a three-year Direct Instruction Follow Through program
perform better than comparable children in comparison groups in their
communities who did not attend the program .. The second finding is less
optimistic. When compared to the nation. norm sample, these children
invariably lose ground in the three years after they have Follow Through."

RESEARCHER'S CONCLUSIONS:

Two main conclusions are drawn: (1) if students learn skills and problem
solving strategies well, they do not lose this knowledge, and (2) without
effective instruction which continues to build on these skills in the
intermediate grades, the children are likely to lose ground with regard to
their middle-income peers.

REVIEWER'S NOTES AND COMMENTS:

None.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 260   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: O'Donnell, R.C., & Smith, N.L. Use of an instructional module to
           heighten awareness of syntactic structure. Studies in Language
           Education, Report No. 3. Athens, GA: Georgia University
           Department of Language, June 1973. (ERIC/EDRS No. ED 077 026)

DESCRIPTORS: Direct Instruction

SHORT TITLE: O'Donnell & Smith, 1973, Syntactic Structure

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS X

RELEVANT ___   IRRELEVANT X FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak,   1   2   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

A direct instructional approach was used to increase student sensitivity to
syntactic structure. As this awareness was not related to other reading
skills or to overall reading achievement, this study falls outside the scope
of the present review.

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ITEM NUMBER: 260   SHORT TITLE: O'Donnell & Smith, 1979, Syntatic
                                       Structure

RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 261   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Gersten, R., & Carnine, D. Direct Instruction Mathematics:
Longitudinal evaluation of over 2,000 low-income children. Paper
presented at the Annual Meeting of the American Educational
Research Association, Los Angeles, CA, April 1982.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Gersten & Carnine, 1981, Direct Instruction Math

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE _X_   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a very good presentation of the findings emerging from the Follow
Through evaluation.

SYNOPSIS:

This report focuses on those results of the Project Follow Through
longitudinal evaluation which have to do with the effects of the Direct
Instruction Follow Through model on the math achievement of the more than
2,000 low SES students who were instructed with it. The participating
children represented a wide variety of racial/ethnic backgrounds and were from
both urban and rural areas. Half had been instructed in Distar Arithmetic
during their K-3 school years, and half during grades 1-3. Comparison school
instructional techniques varied. Distar Math instruction took place for 30
minutes each day, with a teacher or paraprofessional working with groups of
6-10. After program participation, Distar students' achievement and
self-concept scores were compared with those of non-Distar students. Methods
of compairson included: (1) comparison by independent evaluations of Distar
students with local and pooled national comparison groups; (2) norm referenced
comparisons on various mathematics subtests; and (3) self-concept measures.

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RESEARCHER'S FINDINGS:

"Of the ten major education approaches evaluated, students in the Direct
Instruction model performed highest in all areas of Math--Computations...
Problem Solving...and Concepts."

Direct Instruction students also had the highest self-concepts of all Follow
Through students evaluated.

RESEARCHER'S CONCLUSIONS:

"Low socioeconomic primary grade students who received Direct Instruction
tended to perform better in math than students who received other
approaches... Direct Instruction students achieved at a level much higher
than one would predict based on their demographic characteristics and
performance upon entering school."

REVIEWER'S NOTES AND COMMENTS:

None.

ITEM NUMBER: 262   LOCATION: NWREL Info. Center/
                                                  Periodicals (MF)

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Calfee, R.C. & Piontkowski, D.C. The reading diary: Acquisition
           of decoding. Reading Research Quarterly, 1981, 16, 346-373.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Calfee & Piontkowski, 1981, Reading Diary

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This study was well done and its findings were clearly presented.

SYNOPSIS:

This study examined the means by which reading subskills are acquired and
yielded findings about methods which appear most effective for helping
children acquire these subskills. Fifty first graders from four schools were
selected based on (1) initial inability to read, but (2) likelihood of
learning beginning reading skills by the end of first grade. Participating
students represented various social/ethnic groups and were from
low-to-moderate-income neighborhoods. Four reading curricula were used,
ranging from highly structured approaches to flexible, variable ones.
Standardized skill tests were administered to students, as well as
research-developed tests in the areas of decoding, oral reading and
comprehension.

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RESEARCHER'S FINDINGS:

Students in the programs which emphasized reading for meaning performed better
on reading passages than on reading isolated words. Students in programs
which emphasized phonics were most proficient on decoding tests, though some
did not perform well in reading passages.

Students in the direct, highly structured instructional approaches
outperformed those students instructed in other ways.

Other findings are presented on the relationships among the various reading
subskills measured.

RESEARCHER'S CONCLUSIONS:

"Children learn what they are taught," i.e., students whose instructional
program emphasized a certain subskill performed best on tests concerned with
that subskill.

"Children learn more when teaching is direct and structured."

REVIEWER'S NOTES AND COMMENTS:

None.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 263   LOCATION: NWREL Info. Center/
                                              Periodicals (MP)

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Becher, R.M. Teacher behaviors related to the mathematical
          achievement of young children. Journal of Educational Research,
          1980, 73, 336-340.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Becher, 1980, Teacher Behavior & Math Achievement

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   [2]   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

Problems of definition mar the clarity of this study's findings and
conclusions.

SYNOPSIS:

This study examined relationships between teacher behaviors and the
mathematics of four- and five-year old children. Each of eight instructors
taught 12 lessons of 10-15 minutes duration to three groups of children. Tape
recordings of the lessons were analyzed to identify the different approaches
used by the instructors, and these approaches were analyzed in relation to the
achievement of the students.

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RESEARCHER'S FINDINGS:

The analysis revealed that "the more active involvement of the student in the
learning process, through the use of indirect teaching behaviors and a
substantive interactive instructional strategy, is significantly more
effective in facilitating mathematical achievement in young children than in a
direct instruction and drill teaching mode."

There was also a significant negative relationship between the teachers'
provision of feedback by his or her indication of the correctness of a
response and student achievement.

RESEARCHER'S CONCLUSIONS:

The researcher points out that the behaviors which, collectively, are termed
"indirect" in this study are attributes of "direct instruction" as that term
is used by many other researchers. "Therefore, the results of the present
study may be considered consistent or inconsistent with the current literature
[supporting direct instruction], depending on how narrowly or how broadly
'direct instruction' is defined."

REVIEWER'S NOTES AND COMMENTS:

None.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 264   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Meyer, R., & Cohen, S.A. A study of general reading compared to
          direct instruction to increase vocabulary development. Reading
          World, 1975 15, 109-113.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Meyer & Cohen, 1975, General Reading vs. Direct Instruction

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

The treatment period was short, but the study convincingly demonstrated the
efficacy of general reading for this group of students.

SYNOPSIS:

This study examined the relative effects of heavy general reading and direct
vocabulary instruction on the vocabulary development of the 150 participating
fourth graders. Subjects were drawn from four schools and represented the
multi-ethnic Title I population of the Omaha Public Schools. Half the
participants received direct instruction in vocabulary building and half
engaged in periods of tradebook reading. Students participated in these
activities for 60 hours during a four-month period, after which two vocabulary
achievement subtests were administered to the 120 students available at
post-testing time.

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ITEM NUMBER: 264   SHORT TITLE: Meyer & Cohen, 1975, General Reading
                                 vs. Direct Instruction

RESEARCHER'S FINDINGS:

ere was no difference in vocabulary achievement as measured on norm
referenced standardized tests between the vocabulary instruction group and the
heavy tradebook reading group.

RESEARCHER'S CONCLUSIONS:

"Time spent on individual tradebook reading as a basal core of classroom
reading instruction at the expense of time spent on vocabulary drills will
probably not hurt vocabulary growth. It may, in fact, help it."

REVIEWER'S NOTES AND COMMENTS:

A copy of the article may be found in the Direct Instruction backup file.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 265   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Oliver, M.E. The effect of high-intensity practice on reading
          comprehension. Reading Improvement, 1973, 10 (2), 16-18.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Oliver, 1973, High Intensity Practice

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _/_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE _X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   [2]   3   4   (Strong)

BRIEF DISCUSSION OF RATING:

The sample was small and the treatment time short. Also, because the "direct"
(control) method was not described in much detail, it is difficult to know if
this method approximates "direct instruction" as that term is used in other
investigations.

SYNOPSIS:

The purpose of this study was to determine whether a portion of curriculum
time devoted to a quiet reading practice period could improve reading
comprehension as effectively as time devoted to direct instruction during one
month of daily reading periods. Forty-eight students in grades 4, 5 and 6,
who were identified as average readers and who represented an ethnic and
economic cross-section of their school, were divided into two groups. The
high-intensity practice group were involved in gradually lengthening periods
of sustained silent reading, writing and self-selected activities. The
control group participated in an intensive directed reading program using
basal readers and workbooks. In the control class one teacher worked with the
seven lowest-achieving readers, while another teacher taught the rest of the
class. Students were pre- and post-tested by researchers.

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RESEARCHER'S FINDINGS:

Reading comprehension test scores indicated that both groups made significant reading gains.

"While the differences in raw score or standard score means between groups was not statistically significant, gains favored the High Intensity Practice group by one month in grade scores."

RESEARCHER'S CONCLUSIONS:

"The gain in reading comprehension of the HIP group supports the value of including High Intensity Practice in the balanced reading program."

REVIEWER'S NOTES AND COMMENTS:

A copy of the report may   found in the Direct Instruction backup file.

ITEM NUMBER: 266   LOCATION: Info. Center/Periodicals

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Becker, W.C. Teaching reading and language to the disadvantaged -
            What we have learned from field research. Harvard Educational
            Review, 1977, 47, 518-543.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Becker, 1977, Field Research on Reading

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS X

RELEVANT ___   IRRELEVANT X   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak)   1   2   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

This is another review of findings from the Project Follow Through
longitudinal evaluation which indicated the superiority of the Direct
Instruction Model for teaching basic skills. Findings from this evaluation
may be found in Item Nos. 250, 259 and 261.

RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

4 NUMBER: 267　　　　　　　　LOCATION: Project Files

REVIEWER· K. Cotton　　　　　DATE REVIEWED: February 1982

CITATION: Freedman, P.I., Gotti, M., & Holtz, G. In support of direct
teaching to counter ethnic stereotypes. Phi Delta Kappan, 1981,
62, 456.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Freedman, et al., 1981, Countering Ethnic Stereotypes

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_　　IRRELEVANT ___　FOR PRESENT PURPOSE

PRIMARY SOURCE _X_　,　SECONDARY SOURCE ___　　DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

　　(Weak)　1　　　　[2]　　　　3　　　　4　　　　5　　(Strong)

BRIEF DISCUSSION OF RATING:

Detail on the study is sparse. Also, a reduction in student inclination to
hold stereotypes may not be a valued student outcome from everyone's point of
view.

SYNOPSIS:

The purpose of this study was to examine the relationships between three
different approaches to teaching about prominent representatives of various
ethnic groups and the degree to which students held ethnic stereotypes. Four
control classes studied prominent ethnic group representatives using materials
that could reinforce stereotypes (i.e., they studied black athletes, Jewish
bankers, etc.). Two experimental classes studied prominent people whose areas
of prominence did not reinforce stereotypes (i.e., they studies Puerto Rican
playwrights, Polish-American intellectuals and businessmen, etc.). Two other
experimental classes also studied these "counterstereotypic" individuals and,
in addition, were instructed on the topic of stereotypes--how they develop,
why they are harmful, how they can be changed, etc. Each participating
teacher taught one control class and one experimental class. Instruction took
place over a 7-10 day period, after which all children completed an instrument
whic revealed their agreements and disagreements with a series of stereotypic
statements.

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RESEARCHER'S FINDINGS:

There were no differences between control students and those experimental
students whose biographical study content was counterstereotypic. However,
those experimental students who used counterstereotypic biographical materials
and received direct instruction on the topic of stereotypes were far less
inclined to agree with stereotypic statements then either of the other two
groups. This was true with regard to both the ethnic groups they had studied
and those they had not. "A substantial number of students who had directly
studied stereotyping also wrote messages in the margins of their posttests
deploring generalizations about groups."

RESEARCHER'S CONCLUSIONS:

"To attain [the] goal [of reducing or eliminating stereotypic thinking about
groups], teachers must help youngsters recognize stereotypes and understand
their harmful effects. Merely exposing students to nonstereotyped ethnic role
models is not enough..."

REVIEWER'S NOTES AND COMMENTS:

A copy of the article may be found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 268   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Wicker, P.L., & Tyler, J.L. Improving locus of control through
          direct instruction: A pilot study. Education and Training of the
          Mentally Retarded, 1975, 10, 15-18.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Wicker & Tyler, 1975, Improving Locus of Control

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

      (Weak) 1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This study had a modest scope, but convincingly demonstrates that the results
obtained were due to the experimental treatment.

SYNOPSIS:

The purpose of this study was to determine whether retarded children could
learn adaptive behaviors and awareness of behavioral consequences as a result
of a sequential instructional program. Thirty educable mentally retarded
students of intermediate school age in two classes comprised the sample. All
children had trouble understanding that the rewards or punishments they
received were related to the behavior they exhibited. The control class
experienced a traditional EMR curriculum, with no special instruction in
behavior-outcome relationships. In the experimental class, 30-minute sessions
were held each day for 12 weeks, in which behavior-outcome relationships were
directly taught. Using many of the same methods which comprise direct
instruction for regular education students (structured activities, much
teacher-student interaction, immediate teacher feedback), experimental
students were taught that inappropriate behaviors bring on negative
consequences and appropriate behaviors result in material rewards and positive
relationships with others. Students in both groups were tested with
instruments designed to measure understanding of the relationship between
behaviors and outcomes.

RESEARCHER'S FINDINGS:

Experimental students scored higher than control on both measures used.

In addition, the experimental teacher made very positive comments about the
program's effect on her students' behavior and social awareness.

RESEARCHER'S CONCLUSIONS:

While acknowledging that this modest study does not lead to final conclusions,
the author states that the study suggests "that retarded children can profit
from direct instruction on the causal factors of behavior."

Recommendation for further research are offered.

REVIEWER'S NOTES AND COMMENTS:

A copy of the report may be found in the Direct Instruction backup file.

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ITEM NUMBER: 269   LOCATION: PSU Library

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Grusec, J.E., Kuczynski, J.P.R., & Simutis, Z.M. Modeling direct
          instruction, and attributions: Effects on Altruism. Developmental
          Psychology, 1978, 14, 51-57.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Grusec, et al., 1978, Altruism

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS X

RELEVANT ___   IRRELEVANT X   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

Direct instruction is used in this study to mean issuing directives. As such,
it is outside the scope of the present analysis.

ITEM NUMBER: 269   SHORT TITLE: Grusec, et al., 1978, Altruism

RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 270   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Corno, L., Mitman, A., & Hedges, L. The influence of direct
           instruction on student self-approvals: A hierarchical analysis of
           treatment and aptitude-treatment interaction effects. American
           Educational Research Journal, 1981, 18, 39-61.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Corno, et al., 1981, Student Self Apprisals

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

A good, strong study on affective results of direct instruction.

SYNOPSIS:

This is the report of a study which examined the effect on student
self-appraisals produced by different degrees of direct instruction.
Thirty-three teachers and their 634 third graders participated. Teachers were
divided into groups and (1) received intensive training in a program designed
to increase their capacity to provide direct instruction;* (2) received
minimal training in this area; or (3) received no training in this area. Each
student, in addition to receiving instruction from teachers in one of the
above categories, either (1) were instructed by their parents in classroom
behavior skills (reviewing, stating goals, volunteering, etc.), or (2) were
not so instructed. In October and in May of the 1976-77 school year students
completed four self-appraisal instruments--a self-esteem measure, an
attitude-toward-school inventory, an anxiety questionnaire and a scale which
measured locus of control.

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*The teacher training program included content in behavior management, general
 instructional methods and questioning and feedback techniques.

RESEARCHER'S FINDINGS:

Both minimal and intensive teacher training produced more positive
self-appraisals than no training. When a student worked with a teacher who
had experienced either minimal or intensive training and received parent
instruction in the home, results were more positive still. Of the two kinds
of treatment, parent instruction had a more powerful positive effect on
self-appraisal scores than working with a trained teacher.

RESEARCHER'S CONCLUSIONS:

"To those who study variations on 'direct instruction'...results suggest the
treatments used here can leave positive effects on student self-appraisals."

REVIEWER'S NOTES AND COMMENTS:

A copy of the article may be found in the Direct Instruction Back up file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 271   LOCATION: NWREL Info. Center/Periodicals

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Evertson, C.M., Anderson, C.W., Anderson, L.M. & Brophy, J.E.
           Relationships between classroom behaviors and student outcomes in
           junior high mathematics and English classes. _American Educational_
           Research Journal, 1980, 17, 43-60.

DESCRIPTORS: Direct Instruction, Instructional Grouping, Time Factors
              (Learning)

SHORT TITLE: Evertson, et al., 1980, Jr. High Math & English

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   -   (4)   5   Strong

BRIEF DISCUSSION OF RATING:

This was a very well-designed and conducted correlational study.

SYNOPSIS:

This study sought to identify relationships between the classroom behaviors
of junior high school teachers and the achievement and affective outcomes
exhibited by their students. Sixty-eight teachers (39 English and 29
mathematics) were observed in nine junior high schools, and their behaviors
were recorded using a subjective and an objective scale. Two sections were
observed for each teacher. The two student outcome measures used were an
achievement test designed to reflect the subject matter taught that year
(1974-75) in the mathematics and English classes, and a 9-item Likert-scale
questionnaire measuring student attitudes toward their teachers.

RESEARCHER'S FINDINGS:

Teachers' academic competence (as determined by their students' achievement)
played a part in the students' ratings of mathematics teachers, but not
English teachers.

There were no significant associations between observed rates of student
misbehav   and student outcomes.

The more successful math teachers spent more time in class discussion or
lecture...and response opportunities formed a greater portion of their contact
with students. Their private contacts with students were as frequent as those
of the English teachers. No significant relationships were found between
public or private interaction styles and student outcomes in English, though
students preferred teachers with whom they had private contacts.

More successful math teachers asked more questions of all types. No
relationships were noted in the English class.

Teachers who relied on calling on volunteers had classes with higher
achievement gains in math generally and in lower-ability English classes.
Positive teacher feedback was positively associated with achievement. Teacher
encouragement of student questions, opinion giving, etc., was positively
associated with student attitudes.

RESEARCHER'S CONCLUSIONS:

"In mathematics classes, the results form a consistent picture of the
practices of 'good' teachers... The more effective teachers were active,
well-organized and strongly academically oriented. They tended to emphasize
whole class instruction, but with some time also devoted to seatwork. They
managed their classes efficiently, and tended to 'nip trouble in the bud,'
stopping a disturbance before it could seriously disrupt the class. They
asked many questions during class discussions... They were also rated as more
enthusiastic, nurturant and affectionate... This description of good
mathematics teachers is very similar to Rosenshine's...description of direct
instruction (see Item No. 17).

"The results in English classes yielded fewer consistent patterns and these
were generally limited to one of the two criterion measures rather than both."

REVIEWER'S NOTES AND COMMENTS

A copy of this report may be found in the ...

SCHOOL EFFECTIVENESS PROJECT ITEM REPORT

ITEM NUMBER: 272   LOCATION   NWREL Info. Center ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1987

CITATION: Au, K.H. The comprehension-oriented reading lesson: Relationships
          to proximal indices of achievement. Paper presented at the Annual
          Meeting of American Educational Research Association, Boston, MA,
          April 1980. (ERIC/EDRS No. ED 193 602)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Au, 1980, Comprehension-Oriented Reading

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS X

RELEVANT ___   IRRELEVANT X   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes)

        (Weak) 1   2   3   4   5   Strong

BRIEF DISCUSSION OF RATING

SYNOPSIS

This study compared teacher behavior with student behavior, not with student
outcomes. It involved one class of second graders and two teachers.

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ITEM NUMBER.   SHORT TITLE-

RESEARCHER'S FINDINGS

RESEARCHER'S CONCLUSIONS

REVIEWER'S NOTES AND COMMENTS

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 273   LOCATION: NWREL Info. Center ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Haisley, F.B., & Perino. L. Direct instruction of reading
          experiences in "K"indergarten as a transition. Paper presented at
          the Annual Meeting of the International Reading Association, Miami
          Beach, FL, May 1977. (ERIC/EDRS No. ED 137 744)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Haisley & Perino, 1977, "K"indergarten Study

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak) 1   2   3   4   5 (Strong)

BRIEF DISCUSSION OF RATING:

While modest in scope, this study clearly demonstrated the ability of direct
skill-building activities for promoting later reading achievement.

SYNOPSIS:

This study compared the reading achievement of kindergarten students who were
instructed with a language experience approach for developing pre-reading
skills with that of other kindergarten children whose language arts
instruction also included: (1) activities related to auditory and visual
memory and discrimination, and (2) direct, formal instruction in phonics and
other specific pre-reading skills. There were eight control classes (language
experience approach only) and two experimental classes. At the end of the
year, students completed the California Test of Basic Skills (CTBS) Reading
Achievement Test.

RESEARCHER'S FINDINGS:

Students in the experimental classrooms scored (as a group) at the 72
percentile on the CTBS reading tests; control students at the 52 percentile.

RESEARCHER'S CONCLUSIONS.

"The program proved to be very successful."

REVIEWER'S NOTES AND COMMENTS-

The program (called DIRECT, was developed in response to local concern about
reading achievement and was based on research which (1) indicated the
effectiveness of direct procedures and (2) questioned the effectiveness of the
language experience approach because of its "overemphasis on unsystematic
process and less on systematic skill development."

ITEM NUMBER: 274   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Gersten, R., Direct instruction programs in special education
           settings: A review of evaluation research findings. Paper
           presented at the Annual Conference of the Council for Exceptional
           Children, New York, NY, April 1981. (ERIC/EDRS No. ED 204 957)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Gersten, 1981, Distar in Special Education

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ____

RELEVANT X   IRRELEVANT ____   FOR PRESENT PURPOSE

PRIMARY SOURCE ____   SECONDARY SOURCE X   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   '4;   5   (Strong)

BRIEF DISCUSSION OF RATING:

This review presents the salient features of many major evaluation and
documentation efforts with special education students receiving instruction in
Distar programs. The findings are clearly and convincingly presented.

SYNOPSIS:

In this paper the author presents a review of evaluation findings emerging
from the use of the Direct Instruction Model program (Distar Reading, Language
and Mathematics) with various special education populations. The review is
organized according to the kinds of evaluation designs used (experimental,
quasi-experimental, etc.).

RESEARCHER'S FINDINGS:

In general, the evaluation reviewed indicated that the Distar programs were
highly successful in enhancing the basic skill achievement of special
education students. These favorable results were obtained with different
kinds of research approaches, with different kinds of special education
students, in different basic skill areas, in both mainstreamed and
self-contained settings, and by researchers in both the U.S. and other
countries. Selected examples include:

    a study in which severely retarded children using Distar Language I scored
    significantly higher than control children on intellectual growth measures

    a study of learning disabled students who worked with Distar Reading and
    outperformed control students on decoding and comprehension measures

    a study in which children with "minimal brain disfunction" were instructed
    with Distar Reading or with the Palo Alto Reading Program and which showed
    significant, positive effects favoring Distar

    a study in which Distar Language and Distar Reading were used with the
    moderately retarded and which revealed significant student growth in IQ,
    reading and language arts.

RESEARCHER'S CONCLUSIONS:

"Generally, a quite optimistic picture emerges."

The author concludes his report with suggestions for the design of future
evaluation research.

REVIEWER'S NOTES AND COMMENT.

A copy of the review may be found in the Direct Instruction backup file.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 275   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Pany, D., & Jenkins, J.R. Learning word meanings: A comparison of
           instructional procedures and effects on measures of reading
           comprehension with learning disabled students. Technical Report
           No. 25. Cambridge, MA: Bolt, Baranek and Newman; Urbana, IL:
           Illinois University, Center for the Study of Reading, 1977.
           (ERIC/EDRS No. ED 136 237)

DESCRIPTORS: Direct Instruction

SHORT TITLE: Pany & Jenkins, 1977, LD Comprehension Study

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE X_   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   (2)   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

The sample was small and the treatment time very limited. Still, the study
gives indications of the different effects of different instructional
approaches with learning disabled children.

SYNOPSIS:

This study compared the effects of three vocabulary instruction methods on
reading comprehension. Each of six learning disabled students in grades 4 and
5 were instructed in each of the following ways: (1) reading a story and
being expected to infer word meanings from context; (2) having word meanings
explained to them as they read a story; and (3) practicing reciting word
meanings and then reading a story containing those words. After each
treatment, students were tested on two aspects of reading comprehension:
recalling word meanings and recalling facts from the story they read.

RESEARCHER'S FINDINGS:

Students in the second (word meanings explained) condition outperformed
students in the first (word meanings inferred) condition, but differences were
not significant. Students in the third (word meanings practiced) condition
significantly outperformed first- and second-condition students on recall of
word meanings, but not on recall of story facts. All three treatments
produced about the same effect on recall of facts.

RESEARCHER'S CONCLUSIONS:

"Results indicated that as emphasis on direct instruction of word definitions
increased so did performance on vocabulary measures."

Further research is recommended.

REVIEWER'S NOTES AND COMMENTS.

None.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 276   LOCATION: NWREL Info. Center

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Stallings, J. What research has to say to administrators of
          secondary schools about effective teaching and staff development.
          In Duckworth, K., et al., (Eds.). Creating Conditions for
          Effective Schooling: Conference Proceedings. Eugene, OR:
          University of Oregon College of Education, Division of Educational
          Policy and Management, 1981.

DESCRIPTORS: Direct Instruction, Teaching Methods, Inservice Teacher Education

SHORT TITLE: Stallings, 1981, Secondary Research Review

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ____

RELEVANT X   IRRELEVANT ____ FOR PRESENT PURPOSE

PRIMARY SOURCE ____   SECONDARY SOURCE X   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a very good research summary with a clear presentation of practical
applications for the findings emerging from the research.

SYNOPSIS:

In this paper the author presents a review of recent research on effective
school practices at the secondary level, together with the implications of
that research for school policies and staff development. Research findings on
a wide range of instructional and class management topics are presented.

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RESEARCHER'S FINDINGS:

First day organization and planning. Successful teachers began the school
year by making rules, consequences and procedures clear, established a system
of student accountability, and commenced instructional activities.

Time factors: Successful teachers managed class time so that many of the
activities were interactive and several kinds of activities were conducted in
a given class period. Less successful teachers had students spend large
amounts of time on seatwork (written assignments or silent reading).

Interactive supportive instruction: Successful teachers provided oral
instruction for new work, discussed and reviewed students' work, provided
drill and practice, asked questions, acknowledged correct responses and
supportively corrected wrong responses. These teachers worked to include all
students in discussion and review.

Focus of instruction: Research supports the use of small group or whole class
instruction in preference to individualized instruction, which tends to be
largely noninteractive.

Absenteeism, tardiness, intrusions and other interruptions of instructional
continuity were found to be negatively related to achievement. Large classes
were not beneficial, especially for remedial students.

RESEARCHER'S CONCLUSIONS:

"Teachers need to be interactive and directly involved with students to keep
them on-task.

Teachers should distribute questions to all members of the class and be
supportive and guiding in their feedback.

Teachers should offer several activities during a class period so that
students can develop listening, speaking, reading and writing skills...

Teachers need a well-focused, comprehensive, continuous staff development
program...

Schools should keep distractions that intrude upon classroom time to a minimum.

Schools should have a consistent and enforced policy for absences, tardiness
and misbehavior.

Schools should gain parent participation and support..."

REVIEWER'S NOTES AND COMMENTS

None.

ITEM NUMBER: 277   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1981

CITATION   Schneider, K.C. School improvement is possible now, really.
           Washington D.C.: Council for Educational Development and Research,
           May 1979.

DESCRIPTORS   Direct Instruction, Class Organization

SHORT TITLE: Schneider, 1979, School Improvement

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE X   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY for project purposes

       .Weak   1   2   3   4   5   Strong

BRIEF DISCUSSION OF RATING

This review does not offer detail on the research studies examined. It is,
nevertheless, a clear and well-organized summary.

SYNOPSIS:

This paper offers criticisms of the approaches taken by federal agencies and
some of the educational research and development institutions they support to
addressing school improvement issues. The author claims that, in contrast to
the opinions held by many, we do know a great deal about what fosters school
improvement, which is defined as involving "school personnel working with
school children to ensure the latter's achievement of district-adopted
learning goals." The appendix to this paper is an overview of research
findings about practices which foster school improvement. Products are
referenced which have been developed by federally supported research and
development labs and centers and which are consistent with the research
findings cited.

RESEARCHER'S FINDINGS:

Research reviewed by the author relates to instruction in the primary grades and to effective classroom management. Major findings include:

"...that direct instruction" is associated with increased learning gains is a common, almost universal conclusion of recent research...

"...the teachers most successful in managing their classrooms are more alert in monitoring the students and more aware of what is going on at all times, able to sustain one activity while doing something else at the same time, and able to maintain continuity without unnecessary interruptions or confusion." These good managers, in turn, tend "to produce greater learning gains in their students on standardized achievement tests."

RESEARCHER'S CONCLUSIONS:

"As a result of programmatic r&d (research and development) over the past years, the labs and centers can say with confidence that we know the principles of effective instruction in the primary grades, and what teachers need to do to run orderly classrooms."

REVIEWER'S NOTES AND COMMENTS

"The author's comments pertain to direct instruction as described by Rosenshine and Berliner (1978): "(1) academically focused teaching activities where goals are clear to students; (2) sufficient and continuous time allocated to instruction; (3) extensive content coverage; (4) careful monitoring of students' performance; (5) low cognitive level questions that produce many correct responses; (6) immediate and academically oriented feedback; and (7) structured interaction between teacher and students in a convivial academic atmosphere."

A copy of the paper may be found in the Direct Instruction category file.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 278   LOCATION: Project Files

REVIEWER: W.G. Savard   DATE REVIEWED: February 1982

CITATION: Cotton, K. Effective practices for spelling instruction.
          Portland, OR: Northwest Regional Educational Laboratory, January
          1982.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Cotton, 1982, Effective Spelling Instruction

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes)

     (Weak)   1   2   (3)   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

Although it drew on sources other than research studies, this review was quite
complete and was consistent with major research findings and literature
reviews in this area.

SYNOPSIS:

This review of research studies and instructional theory was undertaken in
order to identify instructional practices which have been shown to be
effective for teaching spelling skills to students, K-12. Research on
instructional methods is cited, along with commentary on the divergence
between research and practice.

RESEARCHER'S FINDINGS:

Components of effective spelling instruction include: (1) instruction in
phonics; (2) instruction in those spelling rules which apply to large numbers
of words; (3) presenting spelling words in list form for initial learning; (4)
emphasis on words which are frequently used in spoken and written language;
(5) integration of spelling instruction with other language arts activities;
(6) emphasis on spelling only during spelling lessons for beginning spellers
(misspellings should be tolerated in creative writing activities); (7)
instruction which is direct, systematic and ongoing--not incidental; (8) use
of the test-study-test method; (9) having students correct their own
misspellings; (10) supplementary use of aids such as typewriters and
computers; and (11) individualized instruction.

RESEARCHER'S CONCLUSIONS:

As concerns instructional approach, the conclusion offered is that "While
'support has been voiced for a purely incidental approach to spelling since
the latter part of the nineteenth century'...it should be obvious from the
literature summarized...that the vast majority of educators and researchers
favor the use of systematic spelling instruction."

REVIEWER'S NOTES AND COMMENTS:

A copy of the report may be found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 279   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Good, T.L. Teacher effectiveness in the elementary school.
          Journal of Teacher Education, 1979, 30 (2), 52-64.

DESCRIPTORS: Direct Instruction, Teaching Methods

SHORT TITLE: Good, 1979, Elementary Teacher Effectiveness

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ____

RELEVANT X   IRRELEVANT ____   FOR PRESENT PURPOSE

PRIMARY SOURCE ____   SECONDARY SOURCE X   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   4   [5]   (Strong)

BRIEF DISCUSSION OF RATING:

This excellent review cites and synthesizes the results of many good research
studies on direct instructional techniques and other areas of teacher
effectiveness. Relationships not commented on by other reviewers are noted
and explicated in this article.

SYNOPSIS:

This is a review of a wide range of process-product research conducted during
the 1970s on the relationship between teacher behavior and student
achievement. Defining teacher effectiveness as "the ability of a classroom
teacher to produce higher than predicted gains on standardized achievement
tests," (because this is the area which has been most thoroughly researched),
the author identifies and comments on the findings of more than 50 studies.
His review proceeds from the observation that "naturalistic research
supporting the concept of direct instruction began with the identification of
teachers who were obtaining good student achievement gains." From this point,
he describes the kinds of inquiries which have been conducted regarding the
direct instruction and classroom management aspects of teacher effectiveness.
How and why validated teaching approaches affect achievement are analyzed.

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RESEARCHER'S FINDINGS:

In contrast to studies conducted in the 1950s and 1960s indicating that
schools are relatively ineffectual influences on student achievement by
comparison with social and economic influences, more recent research
overwhelmingly indicates that teachers, in particular, have a tremendous
influence on student achievement.

"Teachers' managerial abilities have been found to relate positively to
student achievement in every process-product study conducted to
date...managerial skills [are] a necessary but not sufficient condition for
classroom effectiveness."

"That direct instruction is associated with increased learning gains is a
common, almost universal conclusion of recent research."

RESEARCHER'S CONCLUSIONS:

"(a) elementary school teachers do exert differential effects upon student
achievement; (b) classroom management skills are exceedingly important; and
(c) a pattern of teaching behavior called direct instruction seems to be a
useful heuristic for describing effective elementary classroom teachers."

REVIEWER'S NOTES AND COMMENTS:

The author's definition of direct instruction, based on the studies he
reviewed, is consistent with the Berliner-Rosenshine descriptions; that is,
only a few degrees less structured than the highly formal instructional
approach of the Distar programs. After citing the Rosenshine definition, he
writes, "When I use the term direct instruction, the image I have is active
teaching. A teacher sets and articulates the learning goals, actively
assesses student progress and frequently makes class presentations
illustrating how to do assigned work..."

A copy of the paper may be found in the Direct Instruction backup file.

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ITEM NUMBER: 280   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Becker, W.C., & Carnine, D.W. Direct Instruction: An effective
          appro..ch to educational intervention with disadvantaged and low
          performers. In Lahey, B.B., & Kazdin, A.E. (Eds.). Advances in
          Clinical Child Psychology. New York, NY: Plenom Publishing
          Corporation, 1980.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Becker & Carnine, 1980, Direct Instruction Follow Through

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS X

RELEVANT ___   IRRELEVANT ___ FOR PRESENT PURPOSE (See Synopsis)

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

     (Weak)   1   2   3   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

This is a very complete discussion of the findings of the Project Follow
Through evaluation which found the University of Oregon Direct Instruction
model to be superior to other Follow Through models and to non-Follow Through
instruction for promoting basic skill development among the disadvantaged.
Applications of this instructional method with learning disabled students are
discussed and a case made for the advantages of Direct Instruction with such
children. While the Follow Through data are highly relevant to the current
inquiry, these have been reported in other Item Reports (Nos. 250, 259 & 261)
and are not repeated here. This chapter is very much worth reading, however,
and may be found in the Direct Instruction backup file.

ITEM NUMBER: 280   SHORT TITLE: Becker & Carnine, 1980, Direct
                                       Instruction Follow Through

RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

See the Direct Instruction backup file for a copy of this chapter.

SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 281   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Carnine, D.W., & Engelmann, S. The Direct Instruction Model (1982,
          in press).

DESCRIPTORS: Direct Instruction

SHORT TITLE: Carnine & Engelmann, 1982, Direct Instruction Operation

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS _X_

RELEVANT ___   IRRELEVANT _X_ FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   3   4   5   (St ng)

BRIEF DISCUSSION OF RATING:

SYNOPSIS:

In this paper the authors discuss the Direct Instruction model as it really
operates in the schools which have implemented it. Program components are
discussed, as are the resources required for implementation and problems which
have been encountered in program operations. It is not a study or review.

RESEARCHER'S FINDINGS:

RESEARCHER'S CONCLUSIONS:

REVIEWER'S NOTES AND COMMENTS:

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 282   LOCATION: NWREL Info. Center/ERIC MF

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Medley, D.M. _Teacher competence and teacher effectiveness. A
          review of process-product research._ Washington, D.C.: American
          Association of Colleges for Teacher Education, August 1977.
          (ERIC/EDRS No. ED 143 629)

DESCRIPTORS: Direct Instruction, Class Organization

SHORT TITLE: Medley, 1977, Teacher Competence and Effectiveness

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT _X_   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE _X_   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   4   [5] (Strong)

BRIEF DISCUSSION OF RATING:

This is a very thoroughgoing review and the findings are clearly presented.
Tabular displays make it possible to identify the sources for each category of
findings.

SYNOPSIS:

This report analyzes and synthesizes the results of 289 studies which
investigated different aspects of teacher competence and teacher
effectiveness. The author describes the review process utilized, pointing out
that he excluded from his analysis all writings which were not the products of
original research, which were reviews, or which were theory or opinion
papers. "The remaining 289 items were examined for empirically obtained
relationships between how a teacher behaves and how much the pupils learn from
   or her, commonly called process-product relationships."

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RESEARCHER'S FINDINGS:

No fewer than 613 relationships are displayed in a series of tables. These
are then synthesized by the reviewer into statements about effective teaching
practices. Selected findings include:

Those teachers whose students performed the highest on achievement measures
also had students with the most positive self-concepts and attitudes toward
school.

Effective teachers of low SES primary children engage their students in more
lesson-related activities than do less effective teachers. These teachers
engage in more direct, interactive instruction and work with the whole class
more. They ask more low-level questions and provide more feedback. Effective
teachers have less deviant or disruptive behavior in their classes. Effective
teaching behaviors for higher SES students are substantially the same, though
more higher level questions are asked and less individual attention is given.

In the upper elementary grades effective teachers (compared to less effective
teachers) talk more, keep pupils on task more, and are less permissive. They
ask lower cognitive questions, use more supplementary materials and permit
more student independence.

The author points out that the studies of the primary level are much more
numerous than those at the upper elementary levels.

RESEARCHER'S CONCLUSIONS:

"...where sufficient effort and resources have been applied to the study of
teacher effectiveness, useful and dependable findings have emerged..."

REVIEWER'S NOTES AND COMMENTS:

An extensive bibliography accompanies this report; this bibliography may be
found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 283   LOCATION: Project Files

REVIEWER: K. Cotton   DATE REVIEWED: February 1982

CITATION: Leo, Y.M. & Sahraie, L. Improving teaching through the practical
          application of research. Kappa Delta Pi Record, 1981, 17 (4),
          117-118; 116.

DESCRIPTORS: Direct Instruction, Class Organization

SHORT TITLE: Leo & Sahraie, 1981, Improving Teaching

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE ___   SECONDARY SOURCE X   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

Detail on the literature reviewed is not provided, but this is nevertheless a
good summary and consistent with the findings of other such efforts.

SYNOPSIS:

This article describes the content of and development process for a slide/tape
presentation intended to acquaint school staffs with the classroom management
and instructional strategies which research has shown to be most effective in
promoting student achievement. The article includes a listing of these
strategies and practices, as revealed by a research review conducted by the
authors. Research reports were retrieved from the files of the Office of
Research and Evaluation at the Austin Independent School District and the
Research and Development Center for Teacher Education at the University of
Texas.

RESEARCHER'S FINDINGS:

Behaviors which research had confirmed as being critical to successful
classroom management procedures for low SES students included: (1) provision
of interesting and appropriate learning tasks; (2) presentation of learning in
"small and redundant chunks"; (3) increase of time-on-task; (4) continuous
monitoring of the classroom; (5) provision of a "signal system" for
transitions; (6) maintenance of a group focus in the classroom; (7) avoidance
of "tunnel vision" on just a few students; and (9) practice of "crowd control"
so as to manage large numbers of students.

Under teaching methods, specific teacher behaviors which research confirmed as
successful were: (1) utilization of a "direct instruction" method; (2)
provision of sufficient time for mastery of each learning "plateau"; (3)
overteaching for overlearning; (4) teaching of groups of 8 or more from
one-third to one-half of the time; (5) asking questions, getting pupil
responses and reacting to these responses; (6) attempting to get a response
from each child; (7) giving of immediate corrective feedback; (8) showing of
encouragement and patience in feedback; (9) use of sustaining feedback, which
involves the teacher staying with the student and rewarding/simplifying the
question until the student succeeds; (10) use of specific praise and
criticism; (11) frequent checking of student comprehension; and (12) placement
of instructions on the board.

RESEARCHER'S CONCLUSIONS:

Concluding statements have to do with the utility of training materials based
on the above practices.

REVIEWER'S NOTES AND COMMENTS:

A copy of the article may be found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 284 LOCATION: Project Files

REVIEWER: K. Cotton DATE REVIEWED: February 1982

CITATION: Sorge, D.H., & Kline, C.E. Verbal behavior of college instructors and attendant effect upon student attitudes and achievement. College Student Journal, 1973, 7 (4), 24-29.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Sorge & Kline, 1973, College Instructor Behavior

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT ___ IRRELEVANT X FOR PRESENT PURPOSE

PRIMARY SOURCE X SECONDARY SOURCE ___ DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

(Weak) [1] 2 3 4 5 (Strong)

BRIEF DISCUSSION OF RATING:

This study was methodologically odd and led to speculation about an as-yet-undetected "personality factor."

SYNOPSIS:

After citing previous research indicating that indirect teaching styles on the part of college instructors have a positive relationship to student achievement and attitude, the authors report the procedures for and results from their own inquiry into this matter. Ten graduate students were divided into two groups, and each was observed and rated as to how direct* or indirect* his or her teaching style was. Observations took place in the context of each graduate student's teaching behavior with undergraduate elementary education majors. Half the graduate students were given periodic feedback and half were not. The 450 students receiving instruction completed three attitude scales and took an achievement test.

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*Indirect verbal behaviors included the following: accepts feelings, praises or encourages, accepts or uses ideas of students, asks questions. Direct verbal behaviors included: lecturing, giving directions, criticizing or justifying authority.

RESEARCHER'S FINDING .

The researchers found that (1) the amount of indirect teaching is not a
sufficient factor for predicting attitude of college students toward
instructor or subject; and (2) students made greater achievement gains when
taught with an indirect teaching style than with a direct teaching style.

RESEARCHER'S CONCLUSIONS:

The findings are restated in the form of conclusions.

REVIEWER'S NOTES AND COMMENTS:

None.

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ITEM NUMBER: 285   LOCATION: Project Files

REVIEWER: K. Cc ton   DATE REVIEWED: February 1982

CITATION: Glenn, A.D., & Ellis, A.K. Direct and indirect methods of teaching
          problem solving to elementary school children. Social Education,
          1982, 46, (2), 134-136.

DESCRIPTORS: Direct Instruction

SHORT TITLE: Glenn & Ellis, 1982, Direct vs. Indirect Teaching

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___ FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ____

RATING OF QUALITY OF STUDY (for project purposes):

    (Weak)   1   2   [3]   4   5   (Strong)

BRIEF DISCUSSION OF RATING:

This study was well-designed and conducted, and convincingly demonstrates the
superiority of direct instruction in problem solving skills.

SYNOPSIS:

In this study direct and indirect instructional methods were compared as to
their efficacy in fostering systematic problem solving skills among students.
Fifty-five students in grades 3 and 4 were pretested to determine whether
their problem solving approaches were "stimulus bound" (limited to the data
available in the problem as presented) or "stimulus free" (importing data from
beyond those available from the problem itself). Students were then randomly
assigned to two treatment conditions. Group 1 received direct, systematic
instruction in problem solving steps and guided practice in applying these to
"real life" problems. Group 2 students were instructed via a
"guided-discovery" approach, in which they were to focus on analyzing a
problem and discover for themselves the ordered steps to follow. Instruction
took place for one hour per day for three days, after which students were
tested on their understanding and application of problem solving steps. The
instrument used revealed whether the students' approach was random or
systematic.

RESEARCHER'S FINDINGS:

The direct method of instruction led to a more systematic following of the
model, as determined by the researcher's analysis. Sixty-three percent of the
students who were taught by the direct method followed the steps in the
problem solving model more closely than did the students in Group 2. Only 18
percent of the Group 2 students followed the model.

"The direct method of instruction had such an impact on the students that,
regardless of their type of classification for thinking (stimulus-free or
stimulus-bound), they tended to follow a more systematic method of solving a
problem."

RESEARCHER'S CONCLUSIONS:

"The findings of this small pilot study suggest that if one wants to teach
students to follow a linear problem-solving model, the most effective
instructional strategy is the direct, explicit method."

REVIEWER'S NOTES AND COMMENTS:

A copy of the report may be found in the Direct Instruction backup file.

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SCHOOL EFFECTIVENESS PROJECT, ITEM REPORT

ITEM NUMBER: 286   LOCATION: NWREL Info. Center/Periodicals

REVIEWER: K. Cotton   DATE REVIEWED: March 1982

CITATION: House, E.R., Glass, G.V., McLean, L.D., & Walker, D.F. No simple
          answer: Critique of the Follow Through evaluation. Harvard
          Educational Review, 1978, 48, 128-160.

DESCRIPTORS: Direct Instruction

SHORT TITLE: House et al., 1978, Follow Through Critique

SKIMMED, REJECTED FOR PROJECT PURPOSES, NO ANALYSIS ___

RELEVANT X   IRRELEVANT ___   FOR PRESENT PURPOSE

PRIMARY SOURCE X   SECONDARY SOURCE ___   DISSERTATION ABSTRACT ___

RATING OF QUALITY OF STUDY (for project purposes):

   (Weak)   1   2   3   [4]   5   (Strong)

BRIEF DISCUSSION OF RATING:

This is a carefully executed analysis, which identified many of the problems
associated with large-scale evaluations of several non-comparable programs and
data collection methods.

SYNOPSIS:

This is a report of a review conducted by a panel assembled at the request and
expense of the Ford Foundation to re-analyze the evaluation of Follow Through
carried out by Abt Associates. The Abt evaluation had indicated that the
Follow Through program had been quite successful, and especially that "models
that emphasize basic skills succeeded better that other models in helping
children gain thse skills." Because a great deal of money had been expended
on the Follow Through program and its evaluation, and becuase "extravagant"
claims had been made for these basic skills-oriented models (including the
University of Oregon Direct Instruction Model), it was decided that a
third-party review was needed as a check on the original findings.
Accordingly, the Ford Foundation awarded a grant to the Center for
Instructional Research and Curriculum Evaluation at the University of Illinois
to conduct the review. Project Director, Ernest House, selected other panel
members and the review was conducted and published.

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RESEARCHER'S FINDINGS:

Reanalysis of the data gathering methods and the data themselves led the panel
to a number of findings which differed from those published by Abt
Associates. The panel identified such problems as: uncertainty of the
classification system used to categorize the different Follow Through models;
differences between a program's stated goals/objectives and its actual
practices and outcomes; inconsistencies in and unreliability of methods used
for assessing outcomes; and numerous problems in data analysis procedures.
The combination of these problems led the panel to voice numerous doubts about
the findings presented by Abt and, therefore, about the efficacy of the
programs evaluated.

RESEARCHER'S CONCLUSIONS:

"... The Follow Through evaluation does not demonstrate that models
emphasizing basic skills are superior to other models... The coverage of
outcome domains is so poor that no judgment of best model can legitimately be
made, no matter how large the difference in test scores..."

A number of recommendations are made for future large-scale evaluations and
reviews of them.

REVIEWER'S NOTES AND COMMENTS:

A copy of the report may be found in the Direct Instruction backup file. See
Item No. 250, which offers a refutation of the panel's review as it bears on
the Direct Instruction model.

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